(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization International Bureau





(43) International Publication Date 17 January 2002 (17.01.2002)

PCT

(10) International Publication Number WO 02/04489 A2

(51) International Patent Classification7: C07K 14/00

(21) International Application Number: PCT/US01/21308

(22) International Filing Date: 5 July 2001 (05.07.2001)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:

60/217,251 10 July 2000 (10.07.2000) US 60/240,335 13 October 2000 (13.10.2000) US 09/834,700 12 April 2001 (12.04.2001) US

(63) Related by continuation (CON) or continuation-in-part (CIP) to earlier applications:

US 60/240,335 (CIP)
Filed on 13 October 2000 (13.10.2000)
US 60/217,251 (CIP)
Filed on 10 July 2000 (10.07.2000)
US 09/834,700 (CIP)
Filed on 12 April 2001 (12.04.2001)

(71) Applicant (for all designated States except US): SE-QUENOM, INC. [US/US]; 3595 John Hopkins Court, San Diego, CA 92121 (US).

(72) Inventor; and

(75) Inventor/Applicant (for US only): BRAUN, Andreas

[DE/US]; 3935 Lago Di Grata, San Diego, CA 92130 (US).

- (74) Agents: SEIDMAN, Stephanie, L. et al.; Heller Ehrman White & McAuliffe LLP, 4250 La Jolla Village Square, 7th floor, La Jolla, CA 92037 (US).
- (81) Designated States (national): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW.
- (84) Designated States (regional): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG).

Published:

 without international search report and to be republished upon receipt of that report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

-290

2/04489 A2

(54) Title: POLYMORPHIC KINASE ANCHOR PROTEINS AND NUCLEIC ACIDS ENCODING THE SAME

(57) Abstract: Polymorphic A-Kinase anchor proteins (AKAPs) and nucleic acids encoding the proteins are provided herein. Methods of detecting polymorphic AKAPs and nucleic acids encoding the AKAPs, and kits for use in the detection methods are also provided. Further provided herein are methods of identifying subjects having or at risk of developing disorders of signal transduction. Methods of determining susceptibility to morbidity and/or increased or early mortality are also provided.

15

POLYMORPHIC KINASE ANCHOR PROTEINS AND NUCLEIC ACIDS ENCODING THE SAME

RELATED APPLICATIONS

Benefit of priority is claimed to U.S. application Serial No. 09/834,700, filed April 12, 2001, to U.S. provisional application Serial No. 60/240,335, filed October 13, 2000, to Andreas Braun, entitled "POLYMORPHIC KINASE ANCHOR PROTEINS AND NUCLEIC ACIDS ENCODING THE SAME" and to U.S. provisional application Serial No. 60/217,251, filed July 10, 2000, to Andreas Braun, entitled "POLYMORPHIC KINASE ANCHOR PROTEINS AND NUCLEIC ACIDS ENCODING THE SAME" is claimed herein.

For U.S. purposes this application is a continuation of U.S. application Serial No. 09/834,700. Benefit of priority under 35 U.S.C. §119(e) to U.S. provisional application Serial No. 60/217,251, filed July 10, 2000, to Andreas Braun, entitled "POLYMORPHIC KINASE ANCHOR PROTEINS AND NUCLEIC ACIDS ENCODING THE SAME" is claimed herein. Benefit of priority under 35 U.S.C. §119(e) to U.S. provisional application Serial No. 60/240,335, filed October 13, 2000, to Andreas Braun, entitled "POLYMORPHIC KINASE ANCHOR PROTEINS AND NUCLEIC ACIDS ENCODING THE SAME" also is claimed herein.

20 This application is related to U.S. Application Serial No. 09/687,483 and International PCT Application No. PCT/US00/28413, each to Andreas Braun, Hubert Köster and Dirk van den Boom, each entitled "METHODS FOR GENERATING DATABASES AND DATABASES FOR IDENTIFYING POLYMORPHIC GENETIC MARKERS", and each filed October 13, 2000. This 25 application is also related to U.S. Provisional Application Serial No. 60/159,176 to Andreas Braun, Hubert Köster; Dirk Van den Boom, filed October 13, 1999, . entitled "METHODS FOR GENERATING DATABASES AND DATABASES FOR IDENTIFYING POLYMORPHIC GENETIC MARKERS". This application is also related to U.S. Provisional Application Serial No. 60/217,658 to Andreas Braun, 30 Hubert Köster; Dirk Van den Boom, filed July 10, 2000, entitled "METHODS FOR GENERATING DATABASES AND DATABASES FOR IDENTIFYING POLYMORPHIC GENETIC MARKERS".

10

Where permitted, the subject matter of each of above-noted U.S. provisional applications, U.S. applications and PCT application is incorporated herein in its entirety.

FIELD OF THE INVENTION

Polymorphic A-kinase anchor proteins (AKAPs) and nucleic acids encoding the proteins are provided herein. Methods of detecting polymorphic AKAPs and nucleic acids encoding the AKAPs, and kits for use in the detection methods are also provided. Further provided herein are methods of identifying subjects having or at a risk of developing disorders of cellular protein phosphorylation and/or signal transduction. Methods of determining susceptibility to morbidity and/or increased or early mortality are also provided.

BACKGROUND OF THE INVENTION

Protein phosphorylation is an important mechanism for enzyme regulation and the transduction of extracellular signals across the cell membrane in 15 eukaryotic cells. A wide variety of cellular substrates, including enzymes, membrane receptors, ion channels and transcription factors, can be phosphorylated in response to extracellular signals that interact with cells. A key enzyme in the phosphorylation of cellular proteins in response to hormones and neurotransmitters is cyclic AMP (cAMP)-dependent protein kinase (PKA). Upon activation by cAMP, PKA thus mediates a variety of cellular responses to 20 such extracellular signals. An array of PKA isozymes are expressed in mammalian cells. The PKAs usually exist as inactive tetrameres containing a regulatory (R) subunit dimer and two catalytic (C) subunits. Genes encoding three C subunits (C α , C β and C γ) and four R subunits (RI α , RI β , RII α and RII β) have been identified (see Takio et al. (1982) Proc. Natl. Acad. Sci. U.S. A. 25 79:2544-2548; Lee et al. (1983) Proc. Natl. Acad. Sci. U.S. A. 80:3608-3612; Jahnsen et al. (1996) J. Biol. Chem. 261:12352-12361; Clegg et al. (1988) Proc. Natl. Acad. Sci. U.S. A. 85:3703-3707; and Scott (1991) Pharmacol. Ther. 50:123-145). The type I (RI) α and type II (RII) α subunits are distributed ubiquitously, whereas $RI\beta$ and $RII\beta$ are present mainly in brain (see. e.g., Miki 30 and Eddy (1999) J. Biol. Chem. 274:29057-29062). The type I PKA holoenzyme (RI α and RI β) is predominantly cytoplasmic, whereas the majority of

10

15

. 20

25

30

type II PKA (RIIa and RIIa) associates with cellular structures and organelles (Scott (1991) *Pharmacol. Ther. 50*:123-145). Many hormones and other signals act through receptors to generate cAMP which binds to the R subunits of PKA and releases and activates the C subunits to phosphorylate proteins.

Because protein kinases and their substrates are widely distributed throughout cells, there are mechanisms in place in cells to localize protein kinase-mediated responses to different signals. One such mechanism involves subcellular targeting of PKAs through association with anchoring proteins, referred to as A-kinase anchoring proteins (AKAPs), that place PKAs in close proximity to specific organelles or cytoskeletal components and particular substrates thereby providing for more specific PKA interactions and localized responses (see, e.g., Scott et al. (1990) J. Biol. Chem. 265:21561-21566; Bregman et al. (1991) J. Biol. Chem. 266:7207-7213; and Miki and Eddy (1999) J. Biol. Chem. 274:29057-29062). Anchoring not only places the kinase close to preferred substrates, but also positions the PKA holoenzyme at sites where it can optimally respond to fluctuations in the second messenger cAMP (Mochly-Rosen (1995) Science 268:247-251; Faux and Scott (1996) Trends Biochem. Sci. 21:312-315; Hubbard and Cohen (1993) Trends Biochem. Sci. 18:172-177).

Up to 75% of type II PKA is localized to various intracellular sites through association of the regulatory subunit (RII) with AKAPs (see, e.g., Hausken et al. (1996) J. Biol. Chem. 271:29016-29022). RII subunits of PKA bind to AKAPs with nanomolar affinity (Carr et al. (1992) J. Biol. Chem. 267:13376-13382), and many AKAP-RII complexes have been isolated from cell extracts. RI subunits of PKA bind to AKAPs with only micromolar affinity (Burton et al. (1997) Proc. Natl. Acad. Sci. U.S.A. 94:11067-11072). Evidence of binding of a PKA RI subunit to an AKAP has been reported (Miki and Eddy (1998) J. Biol. Chem 273:34384-34390) in which Rla-specific and Rla/Rlla dual specificity PKA anchoring domains were identified on FSC1/AKAP82. Additional dual specific AKAPs, referred to as D-AKAP1 and D-AKAP2, which interact with the type I and type II regulatory subunits of PKA have also been reported (Huang et al.

15

25

30

(1997) J. Biol. Chem. 272:8057-8064; Huang et al. (1997) Proc. Natl. Acad. Sci. U.S.A. 94:11184-11189).

More than 20 AKAPs have been reported in different tissues and species. Complementary DNA (cDNA) encoding AKAPs have been isolated from diverse species, ranging from *Caenorhabditis elegans* and *Drosophilia* to human (see, e.g., Colledge and Scott (1999) *Trends Cell Biol.* 9:216-221). Regions within AKAPs that mediate association with RII subunits of PKA have been identified. These regions of approximately 10-18 amino acid residues vary substantially in primary sequence, but secondary structure predictions indicate that they are likely to form an amphipathic helix with hydrophobic residues aligned along one face of the helix and charged residues along the other (Carr et al. (1991) *J. Biol. Chem.* 266:14188-14192; Carr et al. (1992) *J. Biol. Chem.* 267:13376-13382). Hydrophobic amino acids with a long aliphatic side chain, e.g., valine, leucine or isoleucine, may participate in binding to RII subunits (Glantz et al. (1993) *J. Biol. Chem.* 268:12796-12804).

Many AKAPs also have the ability to bind to multiple proteins, including other signalling enzymes. For example, AKAP79 binds to PKA, protein kinase C (PKC) and the protein phosphatase calcineurin (PP2B) (Coghlan *et al.* (1995) *Science 267*:108-112 and Klauck *et al.* (1996) *Science 271*:1589-1592).

Therefore, the targeting of AKAP79 to neuronal postsynaptic membranes brings together enzymes with opposite catalytic activities in a single complex.

AKAPs thus serve as potential regulatory mechanisms that increase the selectivity and intensity of a cAMP-mediated response. There is a need, therefore, to identify and elucidate the structural and functional properties of AKAPs in order to gain a complete understanding of the important role these proteins play in the basic functioning of cells.

SUMMARY OF THE INVENTION

Previously unidentified alleles of the human AKAP10 gene are provided.

One allele, designated AKAP10-5 contains a previously undisclosed single nucleotide polymorphism (SNP), an A-to-G transition, at nucleotide position 2073 of the AKAP10 gene coding sequence. This SNP is located in the C-terminal PKA binding domain, and results in an Ile-to-Val substitution at the protein level

20

for the AKAP10 gene protein product. Another allele, designated AKAP10-6 contains a previously undisclosed single nucleotide polymorphism (SNP), a C-to-G transversion, at nucleotide position 83587 of the human chromosome 17 sequence (SEQ ID NO: 17). The AKAP10 gene is located at approximately nucleotide position 83,580 to nucleotide position 156,577 of the chromosome 17 sequence. This SNP is located in the 5' untranslated region and 132 nucleotides upstream of the translation start site. A further allele, designated AKAP10-7 contains a previously undisclosed single nucleotide polymorphism (SNP), a G-to-A transition, at nucleotide position 129,600 of the human chromosome 17 sequence. This SNP is located four bases 3' to the exon 10/intron 10 boundary of AKAP10 mRNA.

Using a healthy patient database, the frequency of occurrence of two allelic variants of the AKAP10 gene, AKAP10-5 and AKAP10-1, in such a population were found to decrease with age. AKAP10-1 is an allelic variant with a T to C transversion at nucleotide position 156,277 of the AKAP10 genomic clone which is located in the 3' untranslated region of the gene. The AKAP10-5 and AKAP10-1 alleles are useful markers for predicting susceptibility to morbidity and/or increased or early mortality. Methods are provided for predicting susceptibility to morbidity, increased or early mortality, or morbidity and increased mortality, by detecting the presence of the AKAP10 allelic variants, individually, or in combination with other AKAP10 allelic variants, in an organism, particularly an animal and particularly a human. Methods are also provided for indicating or predicting an alteration in signal transduction in an organism. Furthermore, AKAP10-5 and other allelic variants of the AKAP10 gene are potential functional variants of a morbidity susceptibility gene and/or of a gene involved in increased mortality and/or a gene related to an alteration in signal transduction and associated disorders and thus may also be useful for screening for potential therapeutics.

20

25

30

AKAP10-5 nucleic acids and proteins

The nucleotide sequence of the coding sequence of the predominant allele (i.e., the allele present in the greatest frequency for a given population) of the AKAP-10 gene is presented in SEQ ID NO: 1 and the encoded protein sequence in SEQ ID NO: 2. The nucleotide sequence of the coding sequence of the allelic variant AKAP10-5 is presented as SEQ ID NO: 3 and the corresponding protein sequence as SEQ ID NO: 4.

Also provided is an isolated nucleic acid molecule comprising a sequence of nucleotides that encodes the polypeptide as set forth in SEQ ID NO: 2, except that the Ile residue at position 646 of SEQ ID NO: 2 is replaced with Val, Leu or Phe.

Further provided is an isolated nucleic acid molecule comprising a sequence of nucleotides that encodes the polypeptide as set forth in SEQ ID NO: 2, except that the IIe residue at position 646 of SEQ ID NO: 2 is replaced with Val.

Also provided is an isolated nucleic acid molecule comprising the sequence of nucleotides set forth as position 138 to position 2126 of SEQ ID NO: 1, except that the nucleotide at position 2073 of SEQ ID NO: 1 is replaced with a nucleotide selected from among G, T and C.

Further provided is an isolated nucleic acid molecule comprising the sequence of nucleotides set forth as position 138 to position 2126 of SEQ ID NO: 1, except that the nucleotide at position 2073 of SEQ ID NO: 1 is replaced with a G nucleotide.

Further provided is an isolated nucleic acid molecule, comprising a sequence of nucleotides that encodes the polypeptide of SEQ ID NO: 4.

Also provided is an isolated nucleic acid molecule comprising nucleotides from position 138 to position 2126 of SEQ ID NO: 3.

Further provided is an isolated nucleic acid molecule, comprising at least 14 or 16 contiguous nucleotides of SEQ ID NO: 3; wherein the contiguous nucleotides include a sequence of 5 contiguous nucleotides as set forth from position 2069 to position 2077 of SEQ ID NO: 3.

10

15

25

30

Also provided is an isolated nucleic acid molecule, comprising at least 30 contiguous nucleotides of SEQ ID NO 3; wherein the contiguous nucleotides include a sequence of 5 contiguous nucleotides as set forth from position 2069 to position 2077 of SEQ ID NO: 3.

Also provided is an isolated nucleic acid molecule, comprising at least 50 contiguous nucleotides of SEQ ID NO 3; wherein the contiguous nucleotides include a sequence of 5 contiguous nucleotides as set forth from position 2069 to position 2077 of SEQ ID NO: 3.

Further provided is a polypeptide comprising the sequence of amino acid residues as set forth in SEQ ID NO 2, except that the IIe residue at position 646 of SEQ ID NO 2 is replaced with Val, Leu or Phe.

Also provided is a polypeptide comprising the sequence of amino acid residues as set forth in SEQ ID NO 4.

Further provided is a portion of the polypeptide encoded by the nucleic acid molecule comprising a sequence of nucleotides that encodes the polypeptide as set forth in SEQ ID NO: 2, except that the IIe residue at position 646 of SEQ ID NO: 2 is replaced with Val, Leu or Phe and further comprising at least 5 or 6 amino acid residues and including the replaced residue at position 646 of SEQ ID NO: 2.

Also provided is the polypeptide as described above, wherein the residue at position 646 of SEQ ID NO: 2 is Val.

Further provided are primers, probes or antisense nucleic acid molecules that specifically hybridize adjacent to or at a polymorphic region spanning a position corresponding to position 2073 of SEQ ID NO 1 or 3 of an AKAP10 allele or the complement thereof.

Also provided are such primers, probes or antisense nucleic acid molecules as described above that hybridize under moderate or high conditions.

Further provided is a primer that specifically hybridizes at a position immediately adjacent to a position corresponding to position 2073 of SEQ ID NO: 1 or 3 of an AKAP10 allele.

10

15

30

Also provided is a primer that is extended by a nucleotide that specifically base pairs with the nucleotide at a position corresponding to position 2073 of SEQ ID NO: 3 of an AKAP10 allele.

Further provided are such primers, probes or antisense nucleic acid molecules as described above, that are single-stranded and comprise at least 14 or 16 contiguous nucleotides of the AKAP10 allele or complement thereof, wherein the sequence of nucleotides includes at least 5 contiguous nucleotides from position 2069 to position 2077 of SEEQ ID NO: 3. These primers, probes or antisense nucleic acid molecules can also comprise at least 20 or 30 contiguous nucleotides of SEQ ID NO: 3, or the complement thereof.

Further provided are such primers, probes or antisense nucleic acid molecules as described above, that are single-stranded and comprise at least 14 or 16 contiguous nucleotides of the AKAP10 allele or complement thereof, wherein the nucleic acid molecule includes at least 5 contiguous nucleotides from position 2069 to position 2077 of SEQ ID NO: 1, except that the nucleotide at position 2073 of SEQ ID NO: 1 is replaced with a nucleotide selected from among G, T and C.

Further provided are nucleic acid vectors comprising nucleic acid molecules as described above, including a nucleic acid molecule comprising a sequence of nucleotides that encodes the polypeptide as set forth in SEQ ID NO: 2, except that the IIe residue at position 646 of SEQ ID NO: 2 is replaced with Val, Leu or Phe.

Also provided is a primer that has the sequence set forth in SEQ ID NO: 15.

Also provided are cells containing the nucleic acid vectors described above.

AKAP10-6 nucleic acids

The nucleotide sequence of chromosome 17 containing the genomic sequence of the predominant allele (i.e., the allele present in the greatest frequency for a given population) of the AKAP-10 gene is set forth in SEQ ID NO: 17. The nucleotide sequence of chromosome 17 containing the genomic sequence of the allelic variant AKAP10-6 is presented as SEQ ID NO: 13.

15

20

25

30

Provided herein is an isolated nucleic acid molecule comprising the sequence of nucleotides set forth as nucleotides of position 83,580 to position 156,577 of SEQ ID NO: 17, except that the nucleotide at position 83587 of SEQ ID NO: 17 is replaced with a nucleotide selected from among G, A and T.

Further provided is an isolated nucleic acid molecule comprising the sequence of nucleotides set forth as nucleotides of position 83,580 to position 156,577 of SEQ ID NO: 17, except that the nucleotide at position 83587 of SEQ ID NO: 17 is replaced with the nucleotide C.

Also provided is an isolated nucleic acid molecule comprising the sequence of nucleotides set forth as nucleotides of position 83,580 to position 156,577 of SEQ ID NO: 13.

Further provided is an isolated nucleic acid molecule, comprising at least 14 or 16 contiguous nucleotides of SEQ ID NO: 13; wherein the contiguous nucleotides include a sequence of 5 contiguous nucleotides from position 83583 to position 83591 of SEQ ID NO: 13.

Also provided is an isolated nucleic acid molecule, comprising at least 30 contiguous nucleotides of SEQ ID NO: 13; wherein the contiguous nucleotides include a sequence of 5 contiguous nucleotides from position 83583 to position 83591 of SEQ ID NO: 13.

Also provided is an isolated nucleic acid molecule, comprising at least 50 contiguous nucleotides of SEQ ID NO: 13; wherein the contiguous nucleotides include a sequence of 5 contiguous nucleotides from position 83583 to position 83591 of SEQ ID NO: 13.

Further provided are primers that specifically hybridize at a position immediately adjacent to a position corresponding to position 83587 of SEQ ID NO: 13 or 17 of an AKAP10 allele.

Further provided are primers, probes and antisense nucleic acid molecules that specifically hybridize adjacent to or at a polymorphic region spanning a position corresponding to position 83587 of SEQ ID NO: 13 or 17 of an AKAP10 allele or the complement thereof.

Also provided are such primers, probes or antisense nucleic acid molecules as described above that hybridize under moderate or high conditions.

20

30

Further provided are primers that specifically hybridize at a position immediately adjacent to a position corresponding to position 83587 of SEQ ID NO: 13 or 17 of an AKAP10 allele.

Also provided are primers that are extended by a nucleotide that specifically base pairs with the nucleotide at a position corresponding to position 83587 of SEQ ID NO: 13 of an AKAP10 allele.

Further provided are such primers, probes or antisense nucleic acid molecules as described above, that are single-stranded and comprise at least 14 or 16 contiguous nucleotides of the AKAP10 allele or complement thereof, wherein the nucleic acid molecule includes at least 5 contiguous nucleotides from position 83583 to position 83591 of SEQ ID NO: 13. The primers, probes or antisense nucleic acid molecules can also comprise at least 20 or 30 contiguous nucleotides of SEQ ID NO: 13, or the complement thereof.

Further provided are such primers, probes or antisense nucleic acid molecules as described above, that are single-stranded and comprise at least 14 or 16 contiguous nucleotides of the AKAP10 allele or complement thereof, wherein the nucleic acid molecules include at least 5 contiguous nucleotides from position 83583 to position 83591 of SEQ ID NO: 17, except that the nucleotide at position 83587 of SEQ ID NO 17 is replaced with a nucleotide selected from among G, A and T.

Also provided is a primer having the sequence set forth in SEQ ID NO: 19.

Further provided are nucleic acid vectors comprising nucleic acid molecules as described above and cells containing these vectors.

25 AKAP10-7 nucleic acids

The nucleotide sequence of chromosome 17 containing the genomic sequence of the predominant allele (i.e., the allele present in the greatest frequency for a given population) of the AKAP-10 gene is presented as SEQ ID NO: 17. The nucleotide sequence of chromosome 17 containing the genomic sequence of the allelic variant AKAP10-7 is presented as SEQ ID NO: 14.

Provided herein is an isolated nucleic acid molecule comprising the sequence of nucleotides set forth as nucleotides of position 83,580 to position

25

30

156,577 of SEQ ID NO: 17, except that the nucleotide at position 129600 of SEQ ID NO: 17 is replaced with a nucleotide selected from among A, C and T.

Further provided is an isolated nucleic acid molecule comprising the sequence of nucleotides set forth as nucleotides of position 83,580 to position 156,577 of SEQ ID NO: 17, except that the nucleotide at position 129600 of SEQ ID NO: 17 is replaced with the nucleotide A.

Also provided is an isolated nucleic acid molecule comprising the sequence of nucleotides set forth as nucleotides of position 83,580 to position 156,577 of SEQ ID NO: 14.

10 Further provided is an isolated nucleic acid molecule, comprising at least 14 or 16 contiguous nucleotides of SEQ. ID. NO 14; wherein the contiguous nucleotides include a sequence of 5 contiguous nucleotides from position 129556 to position 129604 of SEQ. ID. NO: 14.

Also provided is an isolated nucleic acid molecule, comprising at least 30 contiguous nucleotides of SEQ. ID. NO 14; wherein the contiguous nucleotides include a sequence of 5 contiguous nucleotides from position 129556 to position 29604 of SEQ. ID. NO: 14.

Also provided is an isolated nucleic acid molecule, comprising at least 50 contiguous nucleotides of SEQ. ID. NO 14; wherein the contiguous nucleotides include a sequence of 5 contiguous nucleotides from position 129556 to position 129604 of SEQ. ID. NO: 14.

Further provided are primers, probes or antisense nucleic acid molecules that specifically hybridize adjacent to or at a polymorphic region spanning a position corresponding to position 129,600 of SEQ ID NO 14 or 17 of an AKAP10 allele or the complement thereof.

Further provided are primers that specifically hybridizes at a position immediately adjacent to a position corresponding to position 129600 of SEQ ID NO: 14 or 17 of an AKAP10 allele.

Also provided are primers that are extended by a nucleotide that specifically base pairs with the nucleotide at a position corresponding to position 129600 of SEQ ID NO: 14 of an AKAP10 allele.

15

20

25

30

Also provided are such primers, probes or antisense nucleic acid molecules as described above that hybridize under moderate or high conditions.

Further provided are such primers, probes or antisense nucleic acid molecules as described above, that are single-stranded and comprise at least 14 or 16 contiguous nucleotides of the AKAP10 allele or complement thereof, wherein the nucleic acid molecule includes at least 5 contiguous nucleotides from nucleotide position 129556 to position 129604 of SEQ. ID. NO: 14. The primers, probes or antisense nucleic acid molecules can also comprise at least 20 or 30 contiguous nucleotides of SEQ ID NO: 14, or the complement thereof.

Further provided are such primers, probes or antisense nucleic acid molecules as described above, that are single-stranded and comprise at least 14 or 16 contiguous nucleotides of the AKAP10 allele or complement thereof, wherein the nucleic acid molecule includes at least 5 contiguous nucleotides from nucleotide position 129556 to position 129604 of SEQ. ID. NO: 17, except that the nucleotide at position 129600 of SEQ ID NO: 17 is replaced with a nucleotide selected from among A, C and T.

Also provided is a primer consisting essentially of the nucleic acid of SEQ ID NO: 20.

Further provided are nucleic acid vectors comprising nucleic acid molecules as described above and cells containing these vectors.

Methods for detection of AKAP10 allelic variants

Also provided are methods for determining the presence or absence of an allelic variant of a human AKAP10 gene, comprising determining the identity of the nucleotide at a position corresponding to position 2073 (of SEQ ID NO: 1) of the coding sequence of a human AKAP10 gene or the complement thereof, wherein the variant has a nucleotide other than A at a position corresponding to position 2073 (of SEQ ID NO 1).

Further provided is a method comprising hybridizing a target nucleic acid comprising a human AKAP10-encoding nucleic acid or fragment thereof or a complement of a human AKAP10-encoding nucleic acid or fragment thereof with a nucleic acid primer that hybridizes adjacent to a position corresponding to position 2073 (of SEQ ID NO: 1) of the coding sequence of the human AKAP10

15

20

25

30

gene or the complement thereof; extending the nucleic acid primer using the target nucleic acid as a template; and determining the mass of the extended primer to identify the nucleotide present at a position corresponding to position 2073 or the complement thereof, thereby determining the presence or absence of the allelic variant. The mass of the extended primer can be determined by mass spectrometry.

Further provided is a method that includes the steps of hybridizing a target nucleic acid comprising a human AKAP10-encoding nucleic acid or fragment thereof with a nucleic acid primer that hybridizes adjacent to a position corresponding to position 2073 (of SEQ ID NO: 1) of the coding sequence of the human AKAP10 gene or the complement thereof; extending the nucleic acid primer using the target nucleic acid as a template in the presence of at least one dideoxynucleotide; and determining the mass of the extended primer to identify the nucleotide present at a position corresponding to position 2073 or the complement thereof, thereby determining the presence or absence of an allelic variant. The dideoxynucleotide can be, but are not limited to, ddT or ddA. The primer can also be extended in the presence at least two dideoxynucleotides which are ddT and ddC or ddA and ddG. The mass of the extended primer can be determined by mass spectrometry. Also provided are the above described methods wherein hybridization is effected under conditions of high stringency.

Further provided is a method for detecting the presence or absence of an allelic variant of a human AKAP10 gene, comprising determining the identity of the nucleotide at a position corresponding to position 2073 (of SEQ ID NO: 1) of the coding sequence of a human AKAP10 gene or the complement thereof, wherein a variant has a nucleotide other than A at a position corresponding to position 2073 comprising hybridizing a target nucleic acid comprising a human AKAP10-encoding nucleic acid, complement thereof or fragment thereof with a single-stranded nucleic acid probe at a position corresponding to position 2073 of the coding sequence of the human AKAP10 gene or complement thereof; and detecting hybridized probe to identify the nucleotide present at a position corresponding to position 2073 or the complement thereof, thereby determining the presence or absence of an allelic variant.

15

20°

25

30

Further provided is a method as described above wherein hybridization is effected under conditions of high stringency.

Also provided is a method as described above, wherein the nucleotide of the probe that hybridizes with the nucleotide at a position corresponding to position 2073 is complementary to a G, T, or C nucleotide or the nucleotide of the probe that hybridizes with the nucleotide at the complement of a position corresponding to position 2073 is complementary to a G, A, or C nucleotide.

Also provided are methods where the nucleotide detected at a position corresponding to position 2073 is a G and where the nucleotide detected at the complement of a position corresponding to position 2073 is a C.

Further provided are methods as described above to determine the presence or absence of other allelic variants of the human AKAP10 gene at polymorphic regions corresponding to position 83587 (a nucleotide other than C), corresponding to position 129600 (a nucleotide other than G) and corresponding to position 156,277 (a nucleotide other than T) of SEQ ID NO: 17.

Methods for determining susceptibility to morbidity and/or increased or early mortality

Also provided are methods for determining susceptibility to morbidity, increased or early mortality, or morbidity and increased or early mortality of a subject. These methods include the steps of detecting the presence or absence of at least one allelic variant of a polymorphic region of an AKAP10 gene that is associated with susceptibility to morbidity, increased or early mortality, or morbidity and increased or early mortality; wherein the predominant allele includes an A at a position corresponding to position 2073 of SEQ ID NO: 1, and the presence of the allelic variant is indicative of increased susceptibility to morbidity, increased or early mortality, or morbidity and increased or early mortality as compared to the susceptibility of a subject who does not comprise the allelic variant. The polymorphic region of the AKAP10 gene can comprise a nucleotide other than an A at a position corresponding to position 2073 of the coding sequence of the AKAP10 gene or other than a T of the complement of the coding sequence of the AKAP10 gene.

15

20

25

Other polymorphic regions of the AKAP10 gene representing allelic variants of the AKAP10 gene that are associated with susceptibility to morbidity, increased or early mortality, or morbidity and increased or early mortality comprise a nucleotide other than a C at a position corresponding to position 83587 of the SEQ ID NO: 17 or other than a G on the complementary strand, a nucleotide other than a G at a position corresponding to position 129600 of the SEQ ID NO: 17 or other than a C on the complementary strand and a nucleotide other than T at a position corresponding to position 156,277 of SEQ ID NO: 17 or other than A on the complementary strand.

The detection of the presence or absence of an allelic variant can be effected by, but is not limited to, methods such as allele specific hybridization, primer specific extension, oligonucleotide ligation assay, restriction enzyme site analysis and single-stranded conformation polymorphism analysis. The detection can further be effected, but is not limited to, by mass spectrometry or by a signal moiety such as radioisotopes, enzymes, antigens, antibodies, spectrophotometric reagents, chemiluminescent reagents, fluorescent reagents and other light producing reagents.

A collection of polymorphic regions of the AKAP10 gene that individually represent allelic variants associated with morbidity, increased or early mortality, or morbidity and increased or early mortality in a subject may be more informative than a single allelic variant. Each allelic variant may be assayed individually or the collection may be assayed simultaneously using multiplex assay methods. Further provided is a collection of polymorphic regions of the AKAP10 gene comprising at least two polymorphic regions selected from among a position corresponding to position 2073 of SEQ ID NO 3, a position corresponding to position 83587 of SEQ ID NO: 13, a position corresponding to position 129,600 of SEQ ID NO: 14 and a position corresponding to position 156,277 of SEQ ID NO: 18.

Cells

Further provided is a cell comprising a heterologous nucleic acid, that encodes a human AKAP-10 variant protein or portion thereof that exhibits a biological activity of the full length variant protein, wherein the AKAP-10 protein

10

15

20

25

or portion thereof has a valine at a position corresponding to amino acid residue position 646 of SEQ ID NO 2.

Also provided is a cell contains a heterologous nucleic acid, that encodes the amino acid sequence set forth in SEQ. ID. NO: 4.

Further provided is a cell comprising a heterologous nucleic acid, that includes the sequence of nucleotides as set forth from position 138 to position 2126 of SEQ. ID. NO: 3.

Also provided is a cell comprising a heterologous nucleic acid, that includes the sequence of nucleotides as set forth from position 83580 to position 156,577 of SEQ. ID. NO: 13.

Further provided is a cell comprising a heterologous nucleic acid, that includes the sequence of nucleotides as set forth from position 83580 to position 156,577 of SEQ. ID. NO: 14.

Also provided is a cell comprising a heterologous nucleic acid, that includes the sequence of nucleotides as set forth from position 83580 to position 156,577 of SEQ ID NO: 18.

Kits

Further provided are kits for determining whether a subject has an increased susceptibility to morbidity and/or a predisposition for premature or increased or early mortality. The kits include a first primer or probe that specifically hybridizes adjacent to or at a polymorphic region spanning a position corresponding to position 2073 of SEQ ID NO 1 or 3 of an AKAP10 allele or the complement thereof and a second primer or probe that specifically hybridizes adjacent to or at a polymorphic region spanning a position corresponding to positions selected from among position 83587 of SEQ ID NO 13 or 17, position 129600 of SEQ ID NO 14 or 17, and position 156,277 of SEQ ID NO 18 or 17 of an AKAP10 allele or the complement thereof. Primers include, but are not limited to, nucleic acids having the sequence of nucleotides set forth in any of SEQ ID NO: 8, SEQ ID NO: 15, SEQ ID NO: 19 and SEQ ID NO 20. The kits also optionally contain instructions for carrying out assays, interpreting results or for aid in determining if a subject has a predisposition for an increased susceptibility to morbidity and/or a predisposition for premature or increased or

early mortality. The kits can also include at least one didieoxynucleotide such as ddA, ddC, ddG.

Proteins and methods of producing

Further provided is a method of producing a protein by growing a cell comprising a nucleic acid vector comprising a nucleic acid molecule, comprising a sequence of nucleotides that encodes the polypeptide of SEQ ID NO: 2, except that the IIe residue at position 646 of SEQ ID NO: 2 is replaced with Val, Leu or Phe, under conditions whereby the protein is expressed and isolating the protein.

Also provided are methods wherein the cell is a mammalian cell, yeast cell, insect cell, bacterial cell or human cell.

Proteins produced by the above described methods are also provided.

Transgenic animals

10

20

30

Also provided are transgenic animals comprising heterologous nucleic acid encoding a human AKAP10 protein or portion thereof comprising the binding region for protein kinase A, wherein the AKAP10 protein or portion thereof includes valine at a position corresponding to position 646 of SEQ ID NO: 2, wherein the transgenic nucleotide acid is expressed; and, as a result of the expression, the transgenic animal has an alteration in cellular signal transduction. The transgenic animals include, but are not limited to, rodents, including rats and mice.

Further provided are transgenic animals comprising heterologous nucleic acid encoding the sequence of an allelic variant of a human AKAP10 gene comprising a nucleotide other than a C at a position corresponding with position 83587 of the SEQ ID NO: 17, a nucleotide other than a G at a position corresponding to position 129600 of the SEQ ID NO: 17 or a nucleotide other than T at position corresponding to position 156,277 of SEQ ID NO: 17.

Methods for identifying molecules that modulate the activity of AKAP10 variant proteins and nucleic acids

Further provided are methods for identifying a molecule that modulates the biological activity of an AKAP10 protein. The method is practiced by combining the candidate molecule with a cell containing a nucleic acid molecule encoding an AKAP10 variant protein or portion thereof that retains a biological

15

25

30

activity of the full length variant protein and that has an amino acid residue at a position corresponding to position 646 of SEQ ID NO: 2 which is not lle, operably linked to a promoter such that the nucleotide sequence is expressed as an AKAP protein or portion thereof in the cell; and determining the affect of the molecule upon the biological activity of the AKAP10 protein or portion thereof.

Also provided are methods as described above in which the activity of the AKAP10 protein or portion thereof is determined by examining signal transduction in the cell or by examining binding of AKAP10 protein or portion thereof to protein kinase A or by examining cellular phosphorylation.

Nucleic acid encoding other allelic variants of a human AKAP10 gene, that are not in coding regions, can be introduced into cells allowing for the identification of molecules that may modulate the expression of these sequences at the level of transcription, translation or processing. Such sequences of other allelic variant of a human AKAP10 gene can comprise a nucleotide other than a C at a position corresponding with position 83587 of the SEQ ID NO: 17, a nucleotide other than a G at a position corresponding to position 129600 of the SEQ ID NO: 17 or a nucleotide other than T at position corresponding to position 156,277 of SEQ ID NO: 17. Assays to monitor transcription, translation and processing are familiar to produce in the field.

20 Methods for indicating and/or predicting a susceptibility to an alteration in signal transduction

Further provided are methods for indicating an alteration in signal transduction and/or predicting a susceptibility to an alteration in signal transduction in a subject comprising detecting the presence or absence of an allelic variant of an AKAP10 gene having a nucleotide other than A at a position corresponding to position 2073 of SEQ ID NO: 1, wherein the presence of a nucleotide other than A is indicative of an alteration in signal transduction.

Also provided are methods as described above wherein the allelic variant has a G at a position corresponding to position 2073 of SEQ ID NO: 1.

Other polymorphic regions of the AKAP10 gene representing allelic variants of the AKAP10 gene that are associated with an alteration in signal transduction comprise a nucleotide other than a C at a position corresponding

15

20

25

30

with position 83587 of the SEQ ID NO: 17 or other than a G on the complementary strand, a nucleotide other than a G at a position corresponding to position 129600 of the SEQ ID NO: 17 or other than a C on the complementary strand and a nucleotide other than T at position corresponding to position 156,277 of SEQ ID NO: 17 or other than A on the complementary strand.

Further provided are methods which also comprise detecting the presence or absence of an allelic variant at another polymorphic position of the AKAP10 gene selected from among a position corresponding to position 83587 of SEQ ID NO: 13, a position 129,600 of SEQ ID NO: 14 and position 156,277 of SEQ ID NO: 18.

The alteration in signal transduction maybe related to disorders such as cardiovascular disorders, cardiac disorders, proliferative disorders, neurological disorders, neurodegenerative disorders, obesity, diabetes and peripheral retinopathies, Alzheimer's disease, altered left ventricular function, cardiomyopathies, bipolar disorder and retinitis pigmentosa.

Further provided are the above described methods for which the detecting step is by allele specific hybridization, primer specific extension, oligonucleotide ligation assay, restriction enzyme site analysis and single-stranded conformation polymorphism analysis.

Also provided are methods wherein the detecting is effected by mass spectrometry.

Further provided are methods wherein the detecting is effected by a signal moiety such as radioisotopes, enzymes, antigens, antibodies, spectrophotometric reagents, chemiluminescent reagents, fluorescent reagents and other light producing reagents.

Supports

Also provided are solid supports the include a nucleic acid containing a polymorphic region of an AKAP10 gene. The polymorphic region includes a nucleotide at a position corresponding to position 2073 of SEQ ID NO: 1 that is other than an A or other than T on the complementary strand.

10

15

20

25

Further provided is a solid support comprising a nucleic acid comprising a polymorphic region of an AKAP10 gene, wherein the polymorphic regions includes a nucleotide at a position corresponding to position 83587 of SEQ ID NO: 17 that is other than a C or other than G on the complementary strand.

Also provided is a solid support comprising a nucleic acid comprising a polymorphic region of an AKAP10 gene, wherein the polymorphic regions includes a nucleotide at a position corresponding to position 129600 of SEQ ID NO 17 that is other than a G or other than C on the complementary strand.

Also provided is a solid support comprising a nucleic acid comprising a polymorphic region of an AKAP10 gene, wherein the polymorphic regions includes a nucleotide at a position corresponding to position 156,277 of SEQ ID NO: 17 that is other than T or other than A on the complementary strand.

Further provided is a solid support comprising a nucleic acid comprising a polymorphic region of an AKAP10 gene which is a microarray.

Also provided is a microarray comprising at least 2 nucleic acid molecules each comprising a sequence of a polymorphic region of an AKAP10 gene at a position corresponding the position of the group consisting position 2073 of SEQ ID NO: 3, position 83587 of SEQ ID NO: 13, position 129,600 of SEQ ID NO: 14 and position 156,277 of SEQ ID NO: 18., or the complements thereof.

Micrarrays are well known (see, e.g., U.S. Patent Nos. 5,837,832; 5,858,659; 6,043,136; 6,043,031 and 6,156,501).

Ribozymes

Also provided is an anti-AKAP10 ribozyme comprising a sequence complementary to a polymorphic region of an AKAP10 gene. The polymorphic regions are selected from among a position corresponding to position 2073 of SEQ ID NO: 3, position 83587 of SEQ ID NO: 13, position 129,600 of SEQ ID NO: 14 and position 156,277 of SEQ ID NO: 18.

Further provided is a ribozyme comprising the nucleic acid of SEQ ID NO: 25.

20

30

DETAILED DESCRIPTION OF PREFERRED EMBODIMENTS

A. Definitions

Unless defined otherwise, all technical and scientific terms used herein have the same meaning as is commonly understood by one of skill in the art to which this invention belongs. All patents, patent applications, published applications and publications referred to throughout the disclosure herein are, unless noted otherwise, incorporated by reference in their entirety. In the event that there are a plurality of definitions for terms herein, those in this section prevail.

As used herein, sequencing refers to the process of determining a nucleotide sequence and can be performed using any method known to those of skill in the art. For example, if a polymorphism is identified or known, and it is desired to assess its frequency or presence in nucleic acid samples taken from the subjects that comprise the database, the region of interest from the samples can be isolated, such as by PCR or restriction fragments, hybridization or other suitable method known to those of skill in the art, and sequenced. For purposes herein, sequencing analysis is preferably effected using mass spectrometry (see, e.g., U.S. Patent Nos. 5,547,835, 5,622,824, 5,851,765, and 5,928,906). Nucleic acids can also be sequenced by hybridization (see, e.g., U.S. Patent Nos. 5,503,980, 5,631,134, 5,795,714) and including analysis by mass spectrometry (see, U.S. Application Serial Nos. 08/419,994 and 09/395,409). Alternatively, sequencing may be performed using other known methods, such as set forth in U.S. Patent Nos. 5,525,464; 5,695,940; 5,834,189; 5,869,242; 5,876,934; 5,908,755; 5,912,118; 5,952,174; 5,976,802; 5,981,186; 5,998,143; 6,004,744; 6,017,702; 6,018,041; 6,025,136; 6,046,005; 6,087,095; 6,117,634, 6,013,431,

WO 98/30883; WO 98/56954; WO 99/09218; WO/00/58519, and the others.

As used herein, "polymorphism" refers to the coexistence of more than one form of a gene or portion thereof. A portion of a gene of which there are at least two different forms, i.e., two different nucleotide sequences, is referred to as a "polymorphic region of a gene". A polymorphic region can be a single

10

15

20

25

30

nucleotide, the identity of which differs in different alleles. A polymorphic region can also be several nucleotides in length.

As used herein, "polymorphic gene" refers to a gene having at least one polymorphic region.

As used herein, "allele", which is used interchangeably herein with "allelic variant" refers to alternative forms of a gene or portions thereof. Alleles occupy the same locus or position on homologous chromosomes. When a subject has two identical alleles of a gene, the subject is said to be homozygous for the gene or allele. When a subject has two different alleles of a gene, the subject is said to be heterozygous for the gene. Alleles of a specific gene can differ from each other in a single nucleotide, or several nucleotides, and can include substitutions, deletions, and insertions of nucleotides. An allele of a gene can also be a form of a gene containing a mutation.

As used herein, "predominant allele" refers to an allele that is represented in the greatest frequency for a given population. The allele or alleles that are present in lesser frequency are referred to as allelic variants.

As used herein, "associated" refers to coincidence with the development or manifestation of a disease, condition or phenotype. Association may be due to, but is not limited to, genes responsible for housekeeping functions whose alteration can provide the foundation for a variety of diseases and conditions, those that are part of a pathway that is involved in a specific disease, condition or phenotype and those that indirectly contribute to the manifestation of a disease, condition or phenotype.

As used herein, the term "subject" refers to mammals and in particular human beings.

As used herein, the term "gene" or "recombinant gene" refers to a nucleic acid molecule comprising an open reading frame and including at least one exon and (optionally) an intron sequence. A gene can be either RNA or DNA. Genes may include regions preceding and following the coding region (leader and trailer).

As used herein, "intron" refers to a DNA sequence present in a given gene which is spliced out during mRNA maturation.

25

30

As used herein, "nucleotide sequence complementary to the nucleotide sequence set forth in SEQ ID NO: x" refers to the nucleotide sequence of the complementary strand of a nucleic acid strand having SEQ ID NO: x. The term "complementary strand" is used herein interchangeably with the term "complement". The complement of a nucleic acid strand can be the complement of a coding strand or the complement of a non-coding strand. When referring to double stranded nucleic acids, the complement of a nucleic acid having SEQ ID NO: x refers to the complementary strand of the strand having SEQ ID NO: x or to any nucleic acid having the nucleotide sequence of the complementary strand of SEQ ID NO: x. When referring to a single stranded nucleic acid having the nucleotide sequence SEQ ID NO: x, the complement of this nucleic acid is a nucleic acid having a nucleotide sequence which is complementary to that of SEQ ID NO: x.

As used herein, the term "coding sequence" refers to that portion of a gene that encodes an amino acid sequence of a protein.

As used herein, the term "sense strand" refers to that strand of a doublestranded nucleic acid molecule that has the sequence of the mRNA that encodes the amino acid sequence encoded by the double-stranded nucleic acid molecule.

As used herein, the term "antisense strand" refers to that strand of a

20 double-stranded nucleic acid molecule that is the complement of the sequence of
the mRNA that encodes the amino acid sequence encoded by the doublestranded nucleic acid molecule.

As used herein, the amino acids, which occur in the various amino acid sequences appearing herein, are identified according to their well-known, three-letter or one-letter abbreviations. The nucleotides, which occur in the various DNA fragments, are designated with the standard single-letter designations used routinely in the art (see, Table 1).

As used herein, amino acid residue refers to an amino acid formed upon chemical digestion (hydrolysis) of a polypeptide at its peptide linkages. The amino acid residues described herein are preferably in the "L" isomeric form. However, residues in the "D" isomeric form can be substituted for any L-amino acid residue, as long as the desired functional property is retained by the

polypeptide. NH₂ refers to the free amino group present at the amino terminus of a polypeptide. COOH refers to the free carboxy group present at the carboxyl terminus of a polypeptide. In keeping with standard polypeptide nomenclature described in J. Biol. Chem., 243:3552-59 (1969) and adopted at 37 C.F.R. § § 1.821 - 1.822, abbreviations for amino acid residues are shown in the following Table:

Table 1 се

·	Table of Correspondence		
	SYMBOL		
10	1-Letter	3-Letter	AMINO ACID
·	Y	Tyr	tyrosine
•	G	Gly	glycine
	F	Phe	phenylalanine
	М	Met	methionine
15	Α	Ala	alanine
	S	Ser	serine
	1	lle	isoleucine
•	L	Leu	leucine _.
	Т	Thr	threonine
20	V	Val	valine
	Р	Pro	proline
	К	Lys	lysine
	Н	His	histidine
	Q	Gln	glutamine
25	E	Glu	glutamic acid
	Z	Glx	Glu and/or Gln
	W	Trp	tryptophan
	R	Arg	arginine
	D	Asp	aspartic acid

Ν

Asn

asparagine

30

SYMBOL		
В	Asx	Asn and/or Asp
С	Cys	cysteine
X	Xaa	Unknown or other

herein by formulae have a left to right orientation in the conventional direction of amino-terminus to carboxyl-terminus. In addition, the phrase "amino acid residue" is broadly defined to include the amino acids listed in the Table of Correspondence and modified and unusual amino acids, such as those referred to in 37 C.F.R. § § 1.821-1.822, and incorporated herein by reference.

Furthermore, it should be noted that a dash at the beginning or end of an amino acid residue sequence indicates a peptide bond to a further sequence of one or more amino acid residues or to an amino-terminal group such as NH₂ or to a carboxyl-terminal group such as COOH.

In a peptide or protein, suitable conservative substitutions of amino acids are known to those of skill in this art and may be made generally without altering the biological activity of the resulting molecule. Those of skill in this art recognize that, in general, single amino acid substitutions in non-essential regions of a polypeptide do not substantially alter biological activity (see, e.g., Watson et al. *Molecular Biology of the Gene*, 4th Edition, 1987, The Benjamin/Cummings Pub. co., p.224).

Such substitutions are preferably made in accordance with those set forth in TABLE 2 as follows:

30

35

TABLE 2

	I ADEL &		
	Original residue Ala (A)	Conservative substitution Gly; Ser	
	Arg (R)	Lys	
5	Asn (N)	Gln; His	
	Cys (C)	Ser	
	GIn (Q)	Asn	
	Glu (E)	Asp	
	Gly (G)	Ala; Pro	
10	His (H)	Asn; Gin	
	lle (I)	Leu; Val	
	Leu (L)	lle; Val	
	Lys (K)	Arg; Gln; Glu	
	Met (M)	Leu; Tyr; lle	
15	Phe (F)	Met; Leu; Tyr	
	Ser (S)	Thr	
	Thr (T)	Ser	
	Trp (W)	Tyr	
	Tyr (Y)	Trp; Phe	
20	Val (V)	lle; Leu	

Other substitutions are also permissible and may be determined empirically or in accord with known conservative substitutions.

As used herein, a DNA or nucleic acid homolog refers to a nucleic acid that includes a preselected conserved nucleotide sequence, such as a sequence encoding a therapeutic polypeptide. By the term "substantially homologous" is meant having at least 80%, preferably at least 90%, most preferably at least 95% homology therewith or a less percentage of homology or identity and conserved biological activity or function.

The terms "homology" and "identity" are often used interchangeably. In this regard, percent homology or identity may be determined, for example, by comparing sequence information using a GAP computer program. The GAP program uses the alignment method of Needleman and Wunsch (*J. Mol. Biol.* 48:443 (1970), as revised by Smith and Waterman (*Adv. Appl. Math.* 2:482 (1981). Briefly, the GAP program defines similarity as the number of aligned symbols (i.e., nucleotides or amino acids) which are similar, divided by the total number of symbols in the shorter of the two sequences. The preferred default parameters for the GAP program may include: (1) a unary comparison matrix (containing a value of 1 for identities and 0 for non-identities) and the weighted

comparison matrix of Gribskov and Burgess, *Nucl. Acids Res.* 14:6745 (1986), as described by Schwartz and Dayhoff, eds., *ATLAS OF PROTEIN SEQUENCE AND STRUCTURE*, National Biomedical Research Foundation, pp. 353-358 (1979); (2) a penalty of 3.0 for each gap and an additional 0.10 penalty for each symbol in each gap; and (3) no penalty for end gaps.

Whether any two nucleic acid molecules have nucleotide sequences that are at least 80%, 85%, 90%, 95%, 96%, 97%, 98% or 99% "identical" can be determined using known computer algorithms such as the "FAST A" program, using for example, the default parameters as in Pearson and Lipman, *Proc. Natl. Acad. Sci. USA 85*:2444 (1988). Alternatively the BLAST function of the National Center for Biotechnology Information database may be used to determine identity

In general, sequences are aligned so that the highest order match is 15 obtained. "Identity" per se has an art-recognized meaning and can be calculated using published techniques. (See, e.g.: Computational Molecular Biology, Lesk, A.M., ed., Oxford University Press, New York, 1988; Biocomputing: Informatics and Genome Projects, Smith, D.W., ed., Academic Press, New York, 1993; Computer Analysis of Sequence Data, Part I, Griffin, A.M., and Griffin, H.G., eds., Humana Press, New Jersey, 1994; Sequence Analysis in Molecular 20 Biology, von Heinje, G., Academic Press, 1987; and Sequence Analysis Primer, Gribskov, M. and Devereux, J., eds., M Stockton Press, New York, 1991). While there exist a number of methods to measure identity between two polynucleotide or polypeptide sequences, the term "identity" is well known to 25 skilled artisans (Carillo, H. & Lipton, D., SIAM J Applied Math 48:1073 (1988)). Methods commonly employed to determine identity or similarity between two sequences include, but are not limited to, those disclosed in Guide to Human Genome Computing, Martin J. Bishop, ed., Academic Press, San Diego, 1994, and Carillo, H. & Lipton, D., SIAM J Applied Math 48:1073 (1988). Methods to determine identity and similarity are codified in computer programs. Preferred 30 computer program methods to determine identity and similarity between two sequences include, but are not limited to, GCG program package (Devereux, J.,

15

20

et al., Nucleic Acids Research 12(I):387 (1984)), BLASTP, BLASTN, FASTA (Atschul, S.F., et al., J Molec Biol 215:403 (1990)).

Therefore, as used herein, the term "identity" represents a comparison between a test and a reference polypeptide or polynucleotide. For example, a test polypeptide may be defined as any polypeptide that is 90% or more identical to a reference polypeptide.

As used herein, the term at least "90% identical to" refers to percent identities from 90 to 99.99 relative to the reference polypeptides. Identity at a level of 90% or more is indicative of the fact that, assuming for exemplification purposes a test and reference polynucleotide length of 100 amino acids are compared. No more than 10% (i.e., 10 out of 100) amino acids in the test polypeptide differs from that of the reference polypeptides. Similar comparisons may be made between a test and reference polynucleotides. Such differences may be represented as point mutations randomly distributed over the entire length of an amino acid sequence or they may be clustered in one or more locations of varying length up to the maximum allowable, e.g. 10/100 amino acid difference (approximately 90% identity). Differences are defined as nucleic acid or amino acid substitutions, or deletions.

As used herein, stringency conditions refer to the washing conditions for removing the non-specific probes and conditions that are equivalent to either high, medium, or low stringency as described below:

- 1) high stringency: 0.1 x SSPE, 0.1% SDS, 65°C
- 2) medium stringency: 0.2 x SSPE, 0.1% SDS, 50°C
- 3) low stringency: 1.0 x SSPE, 0.1% SDS, 50°C.

25 It is understood that equivalent stringencies may be achieved using alternative buffers, salts and temperatures. Specific hybridization is generally effected at medium or high stringency and refers to preferential hybridization to a targeted sequence compared to hybridization to a non-targeted sequence, such that the presence of the targeted sequence can be detected.

As used herein, "heterologous DNA" is DNA that encodes RNA and proteins that are not normally produced *in vivo* by the cell in which it is expressed or that mediates or encodes mediators that alter expression of

15

20

25

30

endogenous DNA by affecting transcription, translation, or other regulatable biochemical processes or is not present in the exact orientation or position as the counterpart DNA in a wildtype cell. Heterologous DNA may also be referred to as foreign DNA. Any DNA that one of skill in the art would recognize or consider as heterologous or foreign to the cell in which is expressed is herein encompassed by heterologous DNA. Examples of heterologous DNA include, but are not limited to, DNA that encodes traceable marker proteins, such as a protein that confers drug resistance, DNA that encodes therapeutically effective substances, such as anti-cancer agents, enzymes and hormones, and DNA that encodes other types of proteins, such as antibodies. Antibodies that are encoded by heterologous DNA may be secreted or expressed on the surface of the cell in which the heterologous DNA has been introduced.

As used herein, isolated with reference to a nucleic acid molecule or polypeptide or other biomolecule means that the nucleic acid or polypeptide has separated from the genetic environment from which the polypeptide or nucleic acid were obtained. It may also mean altered from the natural state. For example, a polynucleotide or a polypeptide naturally present in a living animal is not "isolated," but the same polynucleotide or polypeptide separated from the coexisting materials of its natural state is "isolated", as the term is employed herein. Thus, a polypeptide or polynucleotide produced and/or contained within a recombinant host cell is considered isolated. Also intended as an "isolated polypeptide" or an "isolated polynucleotide" are polypeptides or polynucleotides that have been purified, partially or substantially, from a recombinant host cell or from a native source. For example, a recombinantly produced version of a compounds can be substantially purified by the one-step method described in Smith and Johnson, *Gene 67:31-40* (1988). The terms isolated and purified are sometimes used interchangeably.

Thus, by "isolated" is meant that the nucleic acid molecule is free of the coding sequences of those genes that, in the naturally-occurring genome of the organism (if any) immediately flank the gene encoding the nucleic acid of interest. Isolated DNA may be single-stranded or double-stranded, and may be genomic DNA, cDNA, recombinant hybrid DNA, or synthetic DNA. It may be

20

25

30

identical to a native DNA sequence, or may differ from such sequence by the deletion, addition, or substitution of one or more nucleotides.

Isolated or purified as it refers to preparations made from biological cells or hosts means any cell extract containing the indicated DNA or protein including a crude extract of the DNA or protein of interest. For example, in the case of a protein, a purified preparation can be obtained following an individual technique or a series of preparative or biochemical techniques and the DNA or protein of interest can be present at various degrees of purity in these preparations. The procedures may include for example, but are not limited to, ammonium sulfate fractionation, gel filtration, ion exchange change chromatography, affinity chromatography, density gradient centrifugation and electrophoresis.

A preparation of DNA or protein that is "substantially pure" or "isolated" should be understood to mean a preparation free from naturally occurring materials with which such DNA or protein is normally associated in nature. "Essentially pure" should be understood to mean a "highly" purified preparation that contains at least 95% of the DNA or protein of interest.

A cell extract that contains the DNA or protein of interest should be understood to mean a homogenate preparation or cell-free preparation obtained from cells that express the protein or contain the DNA of interest. The term "cell extract" is intended to include culture media, especially spent culture media from which the cells have been removed.

As used herein, receptor refers to a biologically active molecule that specifically binds to (or with) other molecules. The term "receptor protein" may be used to more specifically indicate the proteinaceous nature of a specific receptor.

As used herein, recombinant refers to any progeny formed as the result of genetic engineering.

As used herein, a promoter region refers to the portion of DNA of a gene that controls transcription of the DNA to which it is operatively linked. The promoter region includes specific sequences of DNA that are sufficient for RNA polymerase recognition, binding and transcription initiation. This portion of the promoter region is referred to as the promoter. In addition, the promoter region

10

15

20

25

30

includes sequences that modulate this recognition, binding and transcription initiation activity of the RNA polymerase. These sequences may be *cis* acting or may be responsive to *trans* acting factors. Promoters, depending upon the nature of the regulation, may be constitutive or regulated.

As used herein, the phrase "operatively linked" generally means the sequences or segments have been covalently joined into one piece of DNA, whether in single or double stranded form, whereby control or regulatory sequences on one segment control or permit expression or replication or other such control of other segments. The two segments are not necessarily contiguous. For gene expression a DNA sequence and a regulatory sequence(s) are connected in such a way to control or permit gene expression when the appropriate molecular, e.g., transcriptional activator proteins, are bound to the regulatory sequence(s).

As used herein, production by recombinant means by using recombinant DNA methods means the use of the well known methods of molecular biology for expressing proteins encoded by cloned DNA, including cloning expression of genes and methods, such as gene shuffling and phage display with screening for desired specificities.

As used herein, the term "conjugated" refers stable attachment, such as ionic or covalent attachment.

As used herein, a composition refers to any mixture of two or more products or compounds. It may be a solution, a suspension, liquid, powder, a paste, aqueous, non-aqueous or any combination thereof.

As used herein, a combination refers to any association between two or more items.

As used herein, substantially identical to a product means sufficiently similar so that the property of interest is sufficiently unchanged so that the substantially identical product can be used in place of the product.

As used herein, the term "vector" refers to a nucleic acid molecule capable of transporting another nucleic acid to which it has been linked. One type of preferred vector is an episome, i.e., a nucleic acid capable of extra-chromosomal replication. Preferred vectors are those capable of

15

20

25

30

autonomous replication and/or expression of nucleic acids to which they are linked. Vectors capable of directing the expression of genes to which they are operatively linked are referred to herein as "expression vectors". In general, expression vectors of utility in recombinant DNA techniques are often in the form of "plasmids" which refer generally to circular double stranded DNA loops which, in their vector form are not bound to the chromosome. "Plasmid" and "vector" are used interchangeably as the plasmid is the most commonly used form of vector. Other such other forms of expression vectors that serve equivalent functions and that become known in the art subsequently hereto.

As used herein, "indicating" or "determining" means that the presence or absence of an allelic variant may be one of many factors that are considered when a subject's predisposition to a disease or disorder is evaluated. Thus a predisposition to a disease or disorder is not necessarily conclusively determined by only ascertaining the presence or absence of one or more allelic variants, but the presence of one of more of such variants is among a number of factors considered.

As used herein, "predisposition to develop a disease or disorder" means that a subject having a particular genotype and/or haplotype has a higher likelihood than one not having such a genotype and/or haplotype for developing a particular disease or disorder.

As used herein, "morbidity" refers to conditions, such as diseases or disorders, that compromise the health and well-being of an organism, such as an animal. Morbidity susceptibility or morbidity-associated genes are genes that, when altered, for example, by a variation in nucleotide sequence, facilitate the expression of a specific disease clinical phenotype. Thus, morbidity susceptibility genes have the potential, upon alteration, of increasing the likelihood or general risk that an organism will develop a specific disease.

As used herein, "mortality" refers to the statistical likelihood that an organism, particularly an animal, will not survive a full predicted lifespan. Hence, a trait or a marker, such as a polymorphism, associated with increased mortality is observed at a lower frequency in older than younger segments of a population.

15

20

25

30

As used herein, "transgenic animal" refers to any animal, preferably a non-human animal, e.g. a mammal, bird or an amphibian, in which one or more of the cells of the animal contain heterologous nucleic acid introduced by way of human intervention, such as by transgenic techniques well known in the art. The nucleic acid is introduced into the cell, directly or indirectly by introduction into a precursor of the cell, by way of deliberate genetic manipulation, such as by microinjection or by infection with a recombinant virus. The term genetic manipulation does not include classical cross-breeding, or in vitro fertilization, but rather is directed to the introduction of a recombinant DNA molecule. This molecule may be integrated within a chromosome, or it may be extrachromosomally replicating DNA. In the typical transgenic animals described herein, the transgene causes cells to express a recombinant form of a protein. However, transgenic animals in which the recombinant gene is silent are also contemplated, as for example, using the FLP or CRE recombinase dependent constructs. Moreover, "transgenic animal" also includes those recombinant animals in which gene disruption of one or more genes is caused by human intervention, including recombination and antisense techniques.

As used herein, "target nucleic acid" refers to a nucleic acid molecule which contains all or a portion of a polymorphic region of a gene of interest.

As used herein, "signal moiety" refers to any moiety that allows for the detection of a nucleic acid molecule. Included are moieties covalently attached to nucleic acids and those that are not.

As used herein, "molecule that modulates or effects the biological activity of an AKAP10 protein" refers to any drug, small molecule, nucleic acid (sense and antisense), ribozyme, protein, peptide, lipid, carbohydrate *etc.* or combination thereof, that directly or indirectly changes, alters, abolishes, increases or decreases a biological activity attributed to AKAP10 protein.

As used herein, "biological activity of an AKAP10 protein" refers to, but is not limited to, binding of AKAP10 to protein kinase A or its subunits, localization of AKAP10 protein to a subcellular site, e.g., the mitochondria, localization of protein kinase A to the mitochondria and binding of AKAP10 protein to other proteins including other signalling enzymes.

20

25

As used herein, "combining" refers to contacting the biologically active agent with a cell or animal such that the agent is introduced into the cell or animal. For a cell any method that results in an agent traversing the plasma membrane is useful. For an animal any of the standard routes of administration of an agent, e.g. oral, rectal, transmucosal, intestinal, intravenous, intraperitoneal, intraventricular, subcutaneous, intramuscular, etc., can be used.

As used herein, a composition refers to any mixture. It may be a solution, a suspension, liquid, powder, a paste, aqueous, non-aqueous or any combination thereof.

As used herein, a combination refers to any association between two or among more items.

As used herein, "kit" refers to a package that contains a combination, such as one or more primers or probes used to amplify or detect polymorphic regions of AKAP10 genes, optionally including instructions and/or reagents for their use.

As used herein, "solid support" refers to a support substrate or matrix, such as silica, polymeric materials or glass. At least one surface of the support can be partially planar. Regions of the support may be physically separated, for example with trenches, grooves, well or the like. Some examples of solid supports include slides and beads. Supports are of such composition so as to allow for the immobilization or attachment of nucleic acids and other molecules such that these molecules retain their binding ability.

As used herein, "array" refers to a collection of elements, such as nucleic acids, containing three or more members. An addressable array is one in which the members of the array are identifiable, typically by position on a solid support. Hence, in general the members of the array will be immobilized to discrete identifiable loci on the surface of a solid phase.

As used herein, "specifically hybridizes" refers to hybridization of a probe or primer only to a target sequence preferentially to a non-target sequence.

30 Those of skill in the art are familiar with parameters that affect hybridization; such as temperature, probe or primer length and composition, buffer composition

15

20

25

30

and salt concentration and can readily adjust these parameters to achieve specific hybridization of a nucleic acid to a target sequence.

As used herein "nucleic acid" refers to polynucleotides such as deoxyribonucleic acid (DNA) and ribonucleic acid (RNA). The term should also be understood to include, as equivalents, derivatives, variants and analogs of either RNA or DNA made from nucleotide analogs, single (sense or antisense) and double-stranded polynucleotides. Deoxyribonucleotides include deoxyadenosine, deoxycytidine, deoxyguanosine and deoxythymidine. For RNA, the uracil base is uridine.

As used herein, "mass spectrometry" encompasses any suitable mass spectrometric format known to those of skill in the art. Such formats include, but are not limited to, Matrix-Assisted Laser Desorption/Ionization, Time-of-Flight (MALDI-TOF), Electrospray (ES), IR-MALDI (see, *e.g.*, published International PCT Application No. WO 99/57318 and U.S. Patent No. 5,118,937) Ion Cyclotron Resonance (ICR), Fourier Transform and combinations thereof. MALDI, particular UV and IR, are among the preferred formats.

As used herein, "at a position corresponding to" refers to a position of interest (i.e., base number or residue number) in a nucleic acid molecule or protein relative to the position in another reference nucleic acid molecule or protein. Corresponding positions can be determined by comparing and aligning sequences to maximize the number of matching nucleotides or residues, for example, such that identity between the sequences is greater than 95%, preferably greater than 96%, more preferably greater than 97%, even more preferably greater than 98% and most preferably greater than 99%. The position of interest is then given the number assigned in the reference nucleic acid molecule. For example, it is shown herein that a particular polymorphism in AKAP-10 occurs at nucleotide 2073 of SEQ ID No. 1. To identify the corresponding nucleotide in another allele or isolate, the sequences are aligned and then the position that lines up with 2073 is identified. Since various alleles may be of different length, the position designate 2073 may not be nucleotide 2073, but instead is at a position that "corresponds" to the position in the reference sequence.

15

20

25

30

As used herein, "primer" and "probe" refer to a nucleic acid molecule including DNA, RNA and analogs thereof, including protein nucleic acids (PNA), and mixtures thereof. Such molecules are typically of a length such that they are statistically unique (i.e., occur only once) in the genome of interest.

Generally, for a probe or primer to be unique in the human genome, it contains at least 14, 16 or contiguous nucleotides of a sequence complementary to or identical to a gene of interest. Probes and primers can be 10, 20, 30, 50, 100 or more nucleic acids long.

As used herein, "antisense nucleic acid molecule" refers to a molecule encoding a sequence complementary to at least a portion of an RNA molecule. The sequence is sufficiently complementary to be able to hybridize with the RNA, preferably under moderate or high stringency conditions to form a stable duplex. The ability to hybridize depends on the degree of complementarity and the length of the antisense nucleic acid. Generally, the longer the hybridizing nucleic acid, the more base mismatches with an RNA it can contain and still form a stable duplex. One skilled in the art can ascertain a tolerable degree of mismatch by use of standard procedures to determine the melting point of the hybridized complex.

As used herein, a "variant protein" refers to a protein encoded by an allelic variant of a AKAP10 gene which results in a change of an amino acid residue at a particular position relative to that position in the protein encoded by the predominant allele.

As used herein, "signal transduction" refers to the propagation of a signal. In general, an extracellular signal is transmitted through the cell membrane to become an intracellular signal. This signal can then stimulate a cellular response. The term also encompasses signals that are propagated entirely within a cell. The polypeptide molecules involved in signal transduction processes are typically receptor and non-receptor protein kinases, receptor and non-receptor protein phosphatases, nucleotide exchange factors and transcription factors. One of the key biochemical mechanisms involved in signal transduction is protein phosphorylation. AKAP10 proteins are involved in signal transduction. These proteins bind to protein kinase A (PKA) and anchor the

15

20

30

kinase at a location, such as at mitochondrial locations, where PKA acts to phosphorylate a specific substrate. Thus, an alteration in AKAP10 binding to PKA, localization to the mitochondria, or phosphorylation by PKA, among other steps will result in an alteration in signal transduction. Assays including those that determine phosphorylation by PKA, association of PKA and AKAP10 and localization of AKAP10 can be used to monitor the state of signal transduction.

As used herein, "adjacent" refers to a position 5' to the site of a single nucleotide polymorphism (SNP) such that there could be unpaired nucleotides between that position and the site of the SNP.

As used herein, "immediately adjacent" refers to a position 5' to the site of a single nucleotide polymorphism (SNP) such that there are no unpaired nucleotides between that position and the site of the SNP.

As used herein, "binding to PKA", refers to the interaction of the PKA binding domain of an AKAP10 protein and the regulatory subunits RI and/or RII of the protein kinase A holoenzyme.

B. Polymorphic AKAPs

Polymorphic sequences of A-kinase anchoring protein (AKAP) genes are provided herein. Also provided herein are polymorphic AKAP proteins encoded by polymorphic AKAP gene sequences. These polymorphic sequences are based in differences discovered in AKAP genes within and among different organisms, and, in particular, humans.

Polymorphisms of the genome can lead to altered gene function, protein function or mRNA instability. AKAPs provide a mechanism for regulating ubiquitous cAMP-dependent kinase (PKA) activity by tethering PKA to specific subcellular locations thereby segregating it with particular components in a given signaling pathway and contributing to specificity in cellular responses to extracellular signals. AKAPs thus play a fundamental role in the basic functioning of cells, the response of cells to their environment and ultimately in the coordination of vital systems within an organism. Therefore, polymorphisms in AKAP gene sequences may significantly affect the proper functioning of cells and systems within organisms and could be directly linked with certain disorders or could predispose an organism to a variety of diseases and disorders,

15

20

25

especially those involving alterations in cellular protein phosphorylation and/or signal transduction. Among such disorders and diseases are: neurodegeneratives diseases, such as Alzheimer's Disease, cardiovascular disorders, cardiac disorders, particularly disorders associated with altered left ventricular function, cardiomyopathies, proliferative disorders, bipolar disorder and other neurological disorders, obesity, diabetes and certain peripheral retinopathies, such as retinitis pigmentosa. The discovery of AKAP gene polymorphisms, such as those described herein, provides for the identification and development of diagnostic and prognostic methods, also provided herein, and the development of drug therapies and treatment regimens. Furthermore, polymorphisms of AKAP genes aid in the study of AKAP protein structure and function, which also contributes to the development of diagnostic methods and therapies.

AKAP10

The AKAP10 protein is primarily located in mitochondria. The sequence of a human AKAP10 cDNA (also referred to as D-AKAP2) is available in the GenBank database, at accession numbers AF037439 and NM 007202, and is provided in SEQ. ID. NO:1. The AKAP10 gene is located on chromosome 17.

The sequence of a mouse D-AKAP2 cDNA is also available in the GenBank database (see accession number AFO21833). The mouse D-AKAP2 protein contains an RGS domain near the amino terminus that is characteristic of proteins that interact with Ga subunits and possess GTPase activating protein-like activity (Huang et al. (1997) Proc. Natl. Acad. Sci. U.S.A. 94:11184-11189). The human AKAP10 protein also has sequences homologous to RGS domains. The carboxy-terminal 40 residues of the mouse D-AKAP2 protein are responsible for the interaction with the regulatory subunits of PKA. This sequence is fairly well conserved between the mouse D-AKAP2 and human AKAP10 proteins.

15

20

2.

2. Polymorphisms of the human AKAP10 gene and polymorphic AKAP10 proteins

Polymorphisms of AKAP genes that alter gene expression, regulation, protein structure and/or protein function are more likely to have a significant effect on the regulation of enzyme (particularly PKA) activity, cellular transduction of signals and responses thereto and on the basic functioning of cells than polymorphisms that do not alter gene and/or protein function. Included in the polymorphic AKAPs provided herein are human AKAP10 proteins containing differing amino acid residues at position number 646 of SEQ. ID. No.

Amino acid 646 of the human AKAP10 protein (SEQ. ID. NO: 2) is located in the carboxy-terminal region of the protein within a segment that participates in the binding of R-subunits of PKAs. This segment includes the carboxy-terminal 40 amino acids.

The amino acid residue reported for position 646 of the human AKAP10 protein is an isoleucine. Polymorphic human AKAP10 proteins provided herein have the amino acid sequence set forth in SEQ. ID. NO: 2 but contain residues other than isoleucine at amino acid position 646 of the protein. In particular embodiments of the polymorphic human AKAP10 proteins provided herein, the amino acid at position 646 of SEQ. ID. NO: 2 is a valine (as set forth in SEQ. ID. NO: 4), leucine or phenylalanine residue.

a. An A to G transition at nucleotide 2073 of the human AKAP10 coding sequence

As described herein, an allelic variant of the human AKAP10 gene is at the polymorphic site at position 2073 of the coding sequence (see SEQ.ID. NO: 3) and encodes a valine at position 646 of the AKAP10 protein. This allelic variant has been found to vary in frequency in DNA samples from younger and older segments of a healthy population. This allele has the A at position 2073 of the AKAP10 gene coding sequence of SEQ. ID. NO: 1 changed to a G, giving rise to the sequence set forth in SEQ. ID. NO: 3. Consequently, the codon for amino acid 646 changes from ATT, coding for isoleucine, to GTT, coding for valine.

30

b. An A to C transversion at nucleotide 2073 of the human AKAP10 coding sequence

In another human AKAP10 allelic variant, the nucleotide at position 2073 of the coding sequence in SEQ. ID. NO: 1 is changed from an A to a C. Thus, changing the codon for amino acid 646 from ATT, coding for isoleucine, to CTT, coding for leucine.

c. An A to T transversion at nucleotide 2073 of the human AKAP10 coding sequence

In another human AKAP10 allelic variant, the nucleotide at position 2073 of the coding sequence in SEQ. ID. NO: 1 is changed from an A to a T. Thus, the codon for amino acid 646 changes from ATT, coding for isoleucine, to TTT, coding for phenylalanine.

d. Other AKAP10 polymorphisms

TABLE 3

	Name	GenBank Acession No.	SNP	Location
10-	1	AC005730	T/C	156277
10-	6	AC005730	C/G	83587
10-	7	AC005730	G/A	129600

For AKAP10-1 additional variants are represented by the presence of A or G at nucleotide position 156277 of SEQ ID NO: 17.

For AKAP10-6 additional variants are represented by the presence of A or T at nucleotide position 83587 of SEQ ID NO: 17.

For AKAP10-7 additional variants are represented by the presence of C or T at nucleotide position 129600 of SEQ ID NO: 17.

C. Isolation of Polymorphic AKAP10 Gene Sequences

Exemplary nucleic acid sequences encoding polymorphic human AKAP10 proteins are represented by nucleotides which encode the amino acid sequence as set forth in SEQ. ID. NO: 3. Nucleic acid molecules encoding the sequence of amino acids set forth in SEQ. ID. NO: 1 in which amino acid 646 has been replaced with a leucine or phenylalanine are also provided herein.

10

15

20

25

30

Other exemplary nucleic acid sequences represent allelic variants of the AKAP10 gene which are not located in protein coding regions. Such as set forth in nucleotide position 83,580 to position 156,577 of SEQ ID NO: 13, 14 and 18.

Nucleic acid encoding polymorphic human AKAP10 proteins and genes provided herein may be isolated by screening suitable human cDNA or human genomic libraries under suitable hybridization conditions with nucleic acids such as those provided in SEQ. ID. NOS: 1, 3, 13, 14, 17 and 18. Suitable libraries can be prepared from human tissue and cell samples. In order to isolate cDNA encoding a polymorphic human AKAP10 it is preferable to screen libraries prepared from different tissues as the allele may not be expressed in all tissues or at similar levels in different tissues. The library can be screened with a portion of DNA including substantially the entire human AKAP10 or polymorphic AKAP10 protein-encoding sequence as set forth in SEQ. ID. NOS. 1, 3, 13, 14, 17 and 18, or the library may be screened with a suitable probe.

After screening the library, positive clones are identified by detecting a hybridization signal; the identified clones are characterized by restriction enzyme mapping and/or DNA sequence analysis, and then examined, by comparison with the sequences set forth herein to ascertain whether they include DNA encoding a complete polymorphic human AKAP10 protein (i.e., if they include translation initiation and termination codons). If the selected clones are incomplete, they may be used to rescreen the same or a different library to obtain overlapping clones. If the library is genomic, then the overlapping clones may include exons and introns. If the library is a cDNA library, then the overlapping clones will include an open reading frame. In both instances, clones may be identified by comparison with the DNA and encoded proteins provided herein.

In an alternative method, oligonucleotides based on the human AKAP10 or polymorphic AKAP10 protein-encoding sequence as set forth in SEQ. ID. NOS. 1, 3, 13, 14, 17 and 18, may be used to amplify fragments of the protein coding region of the AKAP10 gene from human cDNA or genomic sequence.

The isolated nucleic acid sequences can be incorporated into vectors for further manipulation. As used herein, vector (or plasmid) refers to discrete elements that are used to introduce heterologous DNA into cells for either

15

20

25

30

expression or replication thereof. Selection and use of such vehicles are well within the skill of the artisan.

D. Detection of Polymorphisms in Human AKAP10 Genes

Methods of determining the presence or absence of allelic variants of a human AKAP10 gene are also provided. In particular methods, the detection or identification of a G, C, or T nucleotide at position 2073 of the sense strand of the human AKAP10 gene coding sequence (see SEQ ID NO: 1), or the detection or identification of a C, G or A nucleotide at the same position in the antisense strand of the human AKAP10 gene coding sequence, indicates the presence of an allelic variant. In these particular methods, the detection or identification of an A nucleotide at position 2073 of the sense strand of the human AKAP10 gene coding sequence, or the detection or identification of a T nucleotide at the same position in the antisense strand of the human AKAP10 gene coding sequence, indicates the absence of polymorphism.

Other methods for determining the presence or absence of an allelic variant of the AKAP10 gene detect or identify a nucleotide other than a C at position 83587 of the SEQ ID NO: 17 or a nucleotide other than a G on the complementary strand, a nucleotide other than a G at position 129600 of the SEQ ID NO: 17 or a nucleotide other than a C on the complementary strand or a nucleotide other than T at position 156,277 of SEQ ID NO: 17 or a nucleotide other than A on the complementary strand.

1. Nucleic acid detection methods

Generally, these methods are based in sequence-specific polynucleotides, oligonucleotides, probes and primers. Any method known to those of skill in the art for detecting a specific nucleotide within a nucleic acid sequence or for determining the identity of a specific nucleotide in a nucleic acid sequence is applicable to the methods of determining the presence or absence of an allelic variant of the AKAP10 gene. Such methods include, but are not limited to, techniques utilizing nucleic acid hybridization of sequence-specific probes, nucleic acid sequencing, selective amplification, analysis of restriction enzyme digests of the nucleic acid, cleavage of mismatched heteroduplexes of nucleic acid and probe, alterations of electrophoretic mobility, primer specific extension,

10

15

20

25

30

oligonucleotide ligation assay and single-stranded conformation polymorphism analysis. In particular, primer extension reactions that specifically terminate by incorporating a dideoxynucleotide are useful for detection. Several such general nucleic acid detection assays are known (see, e.g., U.S. Patent No. 6,030,778).

a. Primer extension-based methods

Several primer extension-based methods for determining the identity of a particular nucleotide in a nucleic acid sequence have been reported (see, e.g., PCT Application Nos. PCT/US96/03651 (WO96/29431), PCT/US97/20444 (WO 98/20166), PCT/US97/20194 (WO 98/20019), PCT/US91/00046 (WO91/13075), and U.S. Patent Nos. 5,547,835, 5,605,798, 5,622,824, 5,691,141, 5,872,003, 5,851,765, 5,856,092, 5,900,481, 6,043,031, 6,133,436 and 6,197,498.) In general, a primer is prepared that specifically hybridizes adjacent to a polymorphic site in a particular nucleic acid molecule. The primer is then extended in the presence of one or more dideoxynucleotides, typically with at least one of the dideoxynucleotides being the complement of the nucleotide that is polymorphic at the site. The primer and/or the dideoxynucleotides may be labeled to facilitate a determination of primer extension and identity of the extended nucleotide. In a preferred method, primer extension and/or the identity of the extended nucleotide(s) are determined by mass spectrometry (see, e.g., PCT Application Nos. PCT/US96/03651 (WO96/29431), PCT Application No. PCT/US97/20444 (WO 98/20166), PCT Application No. PCT/US97/20194 (WO 98/20019), PCT Application No. PCT/US91/00046 (WO91/13075), and U.S. Patent Nos. 5,605,798, 5,622,824, 5,856,092.

b. Polymorphism-specific probe hybridization

A preferred detection method is allele specific hybridization using probes overlapping the polymorphic site and having about 5, 10, 15, 20, 25, or 30 nucleotides around the polymorphic region. The probes can contain naturally occurring or modified nucleotides (see U.S. Patent No. 6,156,501). For example, oligonucleotide probes may be prepared in which the known polymorphic nucleotide is placed centrally (allele-specific probes) and then hybridized to target DNA under conditions which permit hybridization only if a

15

20

25

30

perfect match is found (Saiki et al. (1986) Nature 324:163; Saiki et al. (1989) Proc. Natl Acad. Sci USA 86:6230; and Wallace et al. (1979) Nucl. Acids Res. 6:3543). Such allele specific oligonucleotide hybridization techniques may be used for the simultaneous detection of several nucleotide changes in different polymorphic regions. For example, oligonucleotides having nucleotide sequences of specific allelic variants are attached to a hybridizing membrane and this membrane is then hybridized with labeled sample nucleic acid. Analysis of the hybridization signal will then reveal the identity of the nucleotides of the sample nucleic acid. In a preferred embodiment, several probes capable of hybridizing specifically to allelic variants are attached to a solid phase support, e.g., a "chip". Oligonucleotides can be bound to a solid support by a variety of processes, including lithography. For example a chip can hold up to 250,000 oligonucleotides (GeneChip, Affymetrix, Santa Clara, CA). Mutation detection analysis using these chips comprising oligonucleotides, also termed "DNA probe arrays" is described e.g., in Cronin et al. (1996) Human Mutation 7:244 and in Kozal et al. (1996) Nature Medicine 2:753. In one embodiment, a chip includes all the allelic variants of at least one polymorphic region of a gene. The solid phase support is then contacted with a test nucleic acid and hybridization to the specific probes is detected. Accordingly, the identity of numerous allelic variants of one or more genes can be identified in a simple hybridization experiment.

c. Nucleic acid amplification-based methods

In other detection methods, it is necessary to first amplify at least a portion of an AKAP gene prior to identifying the allelic variant. Amplification can be performed, e.g., by PCR and/or LCR, according to methods known in the art. In one embodiment, genomic DNA of a cell is exposed to two PCR primers and amplification is performed for a number of cycles sufficient to produce the required amount of amplified DNA. In preferred embodiments, the primers are located between 150 and 350 base pairs apart.

Alternative amplification methods include: self sustained sequence replication (Guatelli, J. C. *et al.*, 1990, Proc. Natl. Acad. Sci. U.S.A. 87:1874-1878), transcriptional amplification system (Kwoh, D. Y. *et al.*, 1989,

15

Proc. Natl. Acad. Sci. U.S.A. 86:1173-1177), Q-Beta Replicase (Lizardi, P. M. et al., 1988, Bio/Technology 6:1197), or any other nucleic acid amplification method, followed by the detection of the amplified molecules using techniques well known to those of skill in the art. These detection schemes are especially useful for the detection of nucleic acid molecules if such molecules are present in very low numbers.

Alternatively, allele specific amplification technology, which depends on selective PCR amplification may be used in conjunction with the alleles provided herein. Oligonucleotides used as primers for specific amplification may carry the allelic variant of interest in the center of the molecule (so that amplification depends on differential hybridization) (Gibbs *et al.* (1989) Nucleic Acids Res. 17:2437-2448) or at the extreme 3' end of one primer where, under appropriate conditions, mismatch can prevent, or reduce polymerase extension (Prossner (1993) Tibtech 11:238; Newton *et al.* (1989) Nucl. Acids Res. 17:2503). In addition it may be desirable to introduce a restriction site in the region of the mutation to create cleavage-based detection (Gasparini *et al.* (1992) Mol. Cell Probes 6:1).

d. Nucleic acid sequencing-based methods

In one embodiment, any of a variety of sequencing reactions known in 20 the art can be used to directly sequence at least a portion of an AKAP gene and to detect allelic variants, e.g., mutations, by comparing the sequence of the sample sequence with the corresponding wild-type (control) sequence. Exemplary sequencing reactions include those based on techniques developed by Maxam and Gilbert (Proc. Natl. Acad. Sci. USA (1977) 74:560) or Sanger (Sanger et al. (1977) Proc. Natl. Acad. Sci 74:5463). It is also contemplated that 25 any of a variety of automated sequencing procedures may be used when performing the subject assays (Biotechniques (1995) 19:448), including sequencing by mass spectrometry (see, for example, U.S. Patent Nos. 5,547,835, 5,691,141, and International PCT Application No. 30 PCT/US94/00193 (WO 94/16101), entitled "DNA Sequencing by Mass Spectrometry" by H. Köster; U.S. Patent Nos. 5,547,835, 5,622,824, 5,851,765, 5,872,003, 6,074,823, 6,140,053 and International PCT

20

25

30

Application No. PCT/US94/02938 (WO 94/21822), entitled "DNA Sequencing by Mass Spectrometry Via Exonuclease Degradation" by H. Köster), and U.S. Pat. Nos. 5,605,798, 6,043,031, 6,197,498, and International Patent Application No. PCT/US96/03651 (WO 96/29431) entitled "DNA Diagnostics Based on Mass Spectrometry" by H. Köster; Cohen *et al.* (1996) Adv Chromatogr 36:127-162; and Griffin *et al.* (1993) Appl Biochem Biotechnol 38:147-159). It will be evident to one skilled in the art that, for certain embodiments, the occurrence of only one, two or three of the nucleic acid bases need be determined in the sequencing reaction. For instance, A-track sequencing or an equivalent, *e.g.*, where only one nucleotide is detected, can be carried out. Other sequencing methods are known (see, *e.g.*, in U.S. Patent No. 5,580,732 entitled "Method of DNA sequencing employing a mixed DNA-polymer chain probe" and U.S. Patent No. 5,571,676 entitled "Method for mismatch-directed *in vitro* DNA sequencing").

e. Restriction enzyme digest analysis

In some cases, the presence of a specific allele in nucleic acid, particularly DNA, from a subject can be shown by restriction enzyme analysis. For example, a specific nucleotide polymorphism can result in a nucleic molecule containing a restriction site which is absent from the nucleotide sequence of another allelic variant.

f. Mismatch Cleavage

Protection from cleavage agents, such as, but not limited to, a nuclease, hydroxylamine or osmium tetroxide and with piperidine, can be used to detect mismatched bases in RNA/RNA DNA/DNA, or RNA/DNA heteroduplexes (Myers, et al. (1985) Science 230:1242). In general, the technique of "mismatch cleavage" starts by providing heteroduplexes formed by hybridizing a control nucleic acid moleucle, which is optionally labeled, such as RNA or DNA, encoding an allelic variant, with a sample nucleic acid, such as RNA or DNA, obtained from a tissue sample. The double-stranded duplexes are treated with an agent, which cleaves single-stranded regions of the duplex such as duplexes formed based on basepair mismatches between the control and sample strands. For instance, RNA/DNA duplexes can be treated with RNase and DNA/DNA

hybrids treated with S1 nuclease to enzymatically digest the mismatched regions.

In other embodiments, either DNA/DNA or RNA/DNA duplexes can be treated with hydroxylamine or osmium tetroxide and with piperidine in order to digest mismatched regions. After digestion of the mismatched regions, the resulting material is then separated by size on denaturing polyacrylamide gels to determine whether the control and sample nucleic acids have an identical nucleotide sequence or in which nucleotides they differ (see, for example, Cotton *et al.* (1988) Proc. Natl Acad Sci USA 85:4397; Saleeba *et al.* (1992) Methods Enzymod. 217:286-295). The control or sample nucleic acid is labeled for detection.

g. Electrophoretic mobility alterations

In other embodiments, alteration in electrophoretic mobility is used to identify the type of allelic variant in an AKAP gene. For example, single-strand 15 conformation polymorphism (SSCP) may be used to detect differences in electrophoretic mobility between mutant and wild type nucleic acids (Orita et al. (1989) Proc. Natl. Acad. Sci. USA 86:2766, see also Cotton (1993) Mutat Res 285:125-144; and Hayashi (1992) Genet Anal Tech Appl 9:73-79). Single-stranded DNA fragments of sample and control nucleic acids are denatured and allowed to renature. The secondary structure of single-stranded 20 nucleic acids varies according to sequence, the resulting alteration in electrophoretic mobility enables the detection of even a single base change. The DNA fragments may be labeled or detected with labeled probes. The sensitivity of the assay may be enhanced by using RNA (rather than DNA), in which the secondary structure is more sensitive to a change in sequence. In another 25 preferred embodiment, the subject method uses heteroduplex analysis to separate double stranded heteroduplex molecules on the basis of changes in electrophoretic mobility (Keen et al. (1991) Trends Genet 7:5).

25

Polyacrylamide Gel Electrophoresis h.

In yet another embodiment, the identity of an allelic variant of a polymorphic region of an AKAP gene is obtained by analyzing the movement of a nucleic acid comprising the polymorphic region in polyacrylamide gels containing a gradient of denaturant is assayed using denaturing gradient gel electrophoresis (DGGE) (Myers et al. (1985) Nature 313:495). When DGGE is used as the method of analysis, DNA will be modified to ensure that it does not completely denature, for example by adding a GC clamp of approximately 40 bp of high-melting GC-rich DNA by PCR. In a further embodiment, a temperature gradient is used in place of a denaturing agent gradient to identify differences in the mobility of control and sample DNA (Rosenbaum and Reissner (1987) Biophys Chem 265:1275).

i. Oligonucleotide ligation assay (OLA)

In another embodiment, identification of the allelic variant is carried out 15 using an oligonucleotide ligation assay (OLA), as described, e.g., in U.S. Patent No. 4,998,617 and in Landegren, U. et al., Science 241:1077-1080 (1988). The OLA protocol uses two oligonucleotides which are designed to be capable of hybridizing to abutting sequences of a single strand of a target. One of the oligonucleotides is linked to a separation marker, e.g., biotinylated, and the other 20 is detectably labeled. If the precise complementary sequence is found in a target molecule, the oligonucleotides will hybridize such that their termini abut, and create a ligation substrate. Ligation then permits the labeled oligonucleotide to be recovered using avidin, or another biotin ligand. Nickerson, D. A. et al. have described a nucleic acid detection assay that combines attributes of PCR and OLA (Nickerson, D. A. et al., Proc. Natl. Acad. Sci. (U.S.A.) 87:8923-8927 · (1990). In this method, PCR is used to achieve the exponential amplification of target DNA, which is then detected using OLA.

Several techniques based on this OLA method have been developed and can be used to detect specific allelic variants of a polymorphic region of a gene. For example, U.S. Pat. No. 5,593,826 discloses an OLA using an oligonucleotide having 3'-amino group and a 5'- phosphorylated oligonucleotide to form a conjugate having a phosphoramidate linkage. In another variation of OLA

15

20

25

30

described in Tobe *et al.* (1996) Nucl. Acids Res. 24: 3728), OLA combined with PCR permits typing of two alleles in a single microtiter well. By marking each of the allele-specific primers with a unique hapten, i.e. digoxigenin and fluorescein, each OLA reaction can be detected by using hapten specific antibodies that are labeled with different enzyme reporters, alkaline phosphatase or horseradish peroxidase. This system permits the detection of the two alleles using a high throughput format that leads to the production of two different colors.

i. SNP detection methods

Also provided are methods for detecting single nucleotide polymorphisms. Because single nucleotide polymorphisms constitute sites of variation flanked by regions of invariant sequence, their analysis requires no more than the determination of the identity of the single nucleotide present at the site of variation and it is unnecessary to determine a complete gene sequence for each patient. Several methods have been developed to facilitate the analysis of such single nucleotide polymorphisms.

In one embodiment, the single base polymorphism can be detected by using a specialized exonuclease-resistant nucleotide, as disclosed, *e.g.*, in Mundy, C. R. (U.S. Patent No. 4,656,127). According to the method, a primer complementary to the allelic sequence immediately 3' to the polymorphic site is permitted to hybridize to a target molecule obtained from a particular animal or human. If the polymorphic site on the target molecule contains a nucleotide that is complementary to the particular exonuclease-resistant nucleotide derivative present, then that derivative will be incorporated onto the end of the hybridized primer. Such incorporation renders the primer resistant to exonuclease, and thereby permits its detection. Since the identity of the exonuclease-resistant derivative of the sample is known, a finding that the primer has become resistant to exonucleases reveals that the nucleotide present in the polymorphic site of the target molecule was complementary to that of the nucleotide derivative used in the reaction. This method has the advantage that it does not require the determination of large amounts of extraneous sequence data.

In another embodiment, a solution-based method for determining the identity of the nucleotide of a polymorphic site is employed (Cohen, D. et al.

15

(French Patent 2,650,840; PCT Application No. WO91/02087)). As in the Mundy method of U.S. Patent No. 4,656,127, a primer is employed that is complementary to allelic sequences immediately 3' to a polymorphic site. The method determines the identity of the nucleotide of that site using labeled dideoxynucleotide derivatives, which, if complementary to the nucleotide of the polymorphic site will become incorporated onto the terminus of the primer.

k. Genetic Bit Analysis

An alternative method, known as Genetic Bit Analysis or GBA™ is described by Goelet, et al. (U.S. Patent No. 6,004,744, PCT Application No. 92/15712). The method of Goelet, et al. uses mixtures of labeled terminators and a primer that is complementary to the sequence 3′ to a polymorphic site. The labeled terminator that is incorporated is thus determined by, and complementary to, the nucleotide present in the polymorphic site of the target molecule being evaluated. In contrast to the method of Cohen et al. (French Patent 2,650,840; PCT Application No. WO91/02087), the method of Goelet, et al. is preferably a heterogeneous phase assay, in which the primer or the target molecule is immobilized to a solid phase.

I. Other primer-guided nucleotide incorporation procedures

Other primer-guided nucleotide incorporation procedures for assaying 20 polymorphic sites in DNA have been described (Komher, J. S. et al., Nucl. Acids Res. 17:7779-7784 (1989); Sokolov, B. P., Nucl. Acids Res. 18:3671 (1990); Syvanen, A. C., et al., Genomics 8:684-692 (1990), Kuppuswamy, M. N. et al., Proc. Natl. Acad. Sci. (U.S.A.) 88:1143-1147 (1991); Prezant, T. R. et al., Hum. Mutat. 1:159-164 (1992); Ugozzoli, L. et al., GATA 9:107-112 (1992); Nyren, P. et al., Anal. Biochem. 208:171-175 (1993)). These methods differ from GBA™ 25 in that they all rely on the incorporation of labeled deoxynucleotides to discriminate between bases at a polymorphic site. In such a format, since the signal is proportional to the number of deoxynucleotides incorporated, polymorphisms that occur in runs of the same nucleotide can result in signals that are proportional to the length of the run (Syvanen, A. C., et al., Amer. J. 30 Hum. Genet. 52:46-59 (1993)).

15

20

25

30

For determining the identity of the allelic variant of a polymorphic region located in the coding region of a gene, yet other methods than those described above can be used. For example, identification of an allelic variant which encodes a mutated protein can be performed by using an antibody specifically recognizing the mutant protein in, *e.g.*, immunohistochemistry or immunoprecipitation. Binding assays are known in the art and involve, *e.g.*, obtaining cells from a subject, and performing binding experiments with a labeled lipid, to determine whether binding to the mutated form of the protein differs from binding to the wild-type protein.

m. Molecular structure determination

If a polymorphic region is located in an exon, either in a coding or non-coding region of the gene, the identity of the allelic variant can be determined by determining the molecular structure of the mRNA, pre-mRNA, or cDNA. The molecular structure can be determined using any of the above described methods for determining the molecular structure of the genomic DNA, e.g., sequencing and SSCP.

n. Mass spectrometric methods

Nucleic acids can also be analyzed by detection methods and protocols, particularly those that rely on mass spectrometry (see, *e.g.*, U.S. Patent Nos. 5,605,798, 6,043,031, 6,197,498, and International Patent Application No. WO 96/29431, allowed co-pending U.S. Application Serial No. 08/617,256, allowed co-pending U.S. Application Serial No. 08/744,481, U.S. Application Serial No. 08/990,851, International PCT Application No. WO 98/20019). These methods can be automated (see, *e.g.*, co-pending U.S. Application Serial No. 09/285,481, which describes an automated process line). Preferred among the methods of analysis herein are those involving the primer oligo base extension (PROBE) reaction with mass spectrometry for detection (see *e.g.*, U.S. Patent Nos. 6,043,031 and 6,197,498, Patent Application Serial Nos. 09/287,681, 09/287,682, and 09/287,679, allowed co-pending U.S. Application Serial No. 08/744,481, International PCT Application No. PCT/US97/20444 (WO 98/20166), and based upon U.S. Patent Nos. 5,900,481, 6,024,925, 6,074,823, Application Serial Nos. 08/746,055, 08/786,988, 08/933,792,

10

15

20

25

30

08/746,055, and 08/786,988; see, also U.S. Application Serial No. 09/074,936, and published International PCT Application No. PCT/US97/20195 (WO 98/20020)).

A preferred format for performing the analyses is a chip based format in which the biopolymer is linked to a solid support, such as a silicon or siliconcoated substrate, preferably in the form of an array. More preferably, when analyses are performed using mass spectrometry, particularly MALDI, nanoliter volumes of sample are loaded on, such that the resulting spot is about, or smaller than, the size of the laser spot. It has been found that when this is achieved, the results from the mass spectrometric analysis are quantitative. The area under the peaks in the resulting mass spectra are proportional to concentration (when normalized and corrected for background). Methods for preparing and using such chips are described in U.S. Patent No. 6,024,925, copending U.S. Application Serial Nos. 08/786,988, 09/364,774, 09/371,150 and 09/297,575; see, also PCT Application No. PCT/US97/20195 (WO 98/20020). Chips and kits for performing these analyses are commercially available from SEQUENOM under the trademark MassARRAY™. MassARRAY™ relies on the fidelity of the enzymatic primer extension reactions combined with the miniaturized array and MALDI-TOF (Matrix-Assisted Laser Desorption Ionization-Time of Flight) mass spectrometry to deliver results rapidly. It accurately distinguishes single base changes in the size of DNA fragments relating to genetic variants without tags.

Multiplex methods allow for the simultaneous detection of more than one polymorphic region in a particular gene. This is the preferred method for carrying out haplotype analysis of allelic variants of the AKAP10 gene.

Multiplexing can be achieved by several different methodologies. For example, several mutations can be simultaneously detected on one target sequence by employing corresponding detector (probe) molecules (e.g., oligonucleotides or oligonucleotide mimetics). The molecular weight differences between the detector oligonucleotides must be large enough so that simultaneous detection (multiplexing) is possible. This can be achieved either by

15

20

25

30

the sequence itself (composition or length) or by the introduction of massmodifying functionalities into the detector oligonucleotides (see below).

Mass modifying moieties can be attached, for instance, to either the 5'-end of the oligonucleotide, to the nucleobase (or bases), to the phosphate backbone, and to the 2'-position of the nucleoside (nucleosides) and/or to the terminal 3'-position. Examples of mass modifying moieties include, for example, a halogen, an azido, or of the type, XR, wherein X is a linking group and R is a mass-modifying functionality. The mass-modifying functionality can thus be used to introduce defined mass increments into the oligonucleotide molecule.

The mass-modifying functionality can be located at different positions within the nucleotide moiety (see, e.g., U.S. Patent No. 5,547,835 and International PCT Application No. WO 94/21822). For example, the mass-modifying moiety, M, can be attached either to the nucleobase, (in case of the c⁷ -deazanucleosides also to C-7), to the triphosphate group at the alpha phosphate or to the 2'-position of the sugar ring of the nucleoside triphosphate. Modifications introduced at the phosphodiester bond, such as with alpha-thio nucleoside triphosphates, have the advantage that these modifications do not interfere with accurate Watson-Crick base-pairing and additionally allow for the one-step post-synthetic site-specific modification of the complete nucleic acid molecule e.g., via alkylation reactions (see, e.g., Nakamaye et al. (1988) Nucl. Acids Res. 16:9947-59). Particularly preferred mass-modifying functionalities are boron-modified nucleic acids since they are better incorporated into nucleic acids by polymerases (see, e.g., Porter et al. (1995) Biochemistry 34:11963-11969; Hasan et al. (1996) Nucleic Acids Res. 24:2150-2157; Li et al. (1995) Nucl. Acids Res. 23:4495-4501).

Furthermore, the mass-modifying functionality can be added so as to affect chain termination, such as by attaching it to the 3'-position of the sugar ring in the nucleoside triphosphate. For those skilled in the art, it is clear that many combinations can be used in the methods provided herein. In the same way, those skilled in the art will recognize that chain-elongating nucleoside triphosphates can also be mass-modified in a similar fashion with numerous variations and combinations in functionality and attachment positions.

For example, without being bound to any particular theory, the mass-modification can be introduced for X in XR as well as using oligo-/polyethylene glycol derivatives for R. The mass-modifying increment (m) in this case is 44, i.e. five different mass-modified species can be generated by just changing m from 0 to 4 thus adding mass units of 45 (m=0), 89 (m=1), 133 (m=2), 177 (m=3) and 221 (m=4) to the nucleic acid molecule (e.g., detector oligonucleotide (D) or the nucleoside triphosphates, respectively). The oligo/polyethylene glycols can also be monoalkylated by a lower alkyl such as, but are not limited to, methyl, ethyl, propyl, isopropyl and t-butyl. Other chemistries can be used in the mass-modified compounds (see, e.g., those described in Oligonucleotides and Analogues, A Practical Approach, F. Eckstein, editor, IRL Press, Oxford, 1991).

In yet another embodiment, various mass-modifying functionalities, R, other than oligo/polyethylene glycols, can be selected and attached via appropriate linking chemistries, X. A simple mass-modification can be achieved 15 by substituting H for halogens, such as F, Cl, Br and/or I, or pseudohalogens such as CN, SCN, NCS, or by using different alkyl, aryl or aralkyl moieties such as methyl, ethyl, propyl, isopropyl, t-butyl, hexyl, phenyl, substituted phenyl, benzyl, or functional groups such as CH₂F, CHF₂, CF₃, Si(CH₃)₃, Si(CH₃)₂(C₂H₅), $Si(CH_3)(C_2H_5)_2$, $Si(C_2H_5)_3$. Yet another mass-modification can be obtained by 20 attaching homo- or heteropeptides through the nucleic acid molecule (e.g., detector (D)) or nucleoside triphosphates). One example, useful in generating mass-modified species with a mass increment of 57, is the attachment of oligoglycines (m) to nucleic acid molecules (r), e.g., mass-modifications of 74 (r=1, m=0), 131 (r=1, m=1), 188 (r=1, m=2), 245 (r=1, m=3) are 25 achieved. Simple oligoamides also can be used, e.g., mass-modifications of 74 (r=1, m=0), 88 (r=2, m=0), 102 (r=3, m=0), 116 (r=4, m=0), etc. are obtainable. Variations in additions to those set forth herein will be apparent to the skilled artisan.

30 Different mass-modified detector oligonucleotides can be used to simultaneously detect all possible variants/mutants simultaneously.
Alternatively, all four base permutations at the site of a mutation can be

10

15

20

25

30

detected by designing and positioning a detector oligonucleotide, so that it serves as a primer for a DNA/RNA polymerase with varying combinations of elongating and terminating nucleoside triphosphates. For example, mass modifications also can be incorporated during the amplification process.

A different multiplex detection format is one in which differentiation is accomplished by employing different specific capture sequences which are position-specifically immobilized on a flat surface (e.g., a 'chip array'). If different target sequences T1-Tn are present, their target capture sites TCS1-TCSn will specifically interact with complementary immobilized capture sequences C1-Cn. Detection is achieved by employing appropriately mass differentiated detector oligonucleotides D1-Dn, which are mass modifying functionalities M1-Mn.

o. Other methods

Additional methods of analyzing nucleic acids include amplification-based methods including polymerase chain reaction (PCR), ligase chain reaction (LCR), mini-PCR, rolling circle amplification, autocatalytic methods, such as those using QJ replicase, TAS, 3SR, and any other suitable method known to those of skill in the art.

Other methods for analysis and identification and detection of polymorphisms, include but are not limited to, allele specific probes, Southern analyses, and other such analyses.

2. Primers, probes and antisense nucleic acid molecules

Primers refer to nucleic acids which are capable of specifically hybridizing to a nucleic acid sequence which is adjacent to a polymorphic region of interest or to a polymorphic region and are extended. A primer can be used alone in a detection method, or a primer can be used together with at least one other primer or probe in a detection method. Primers can also be used to amplify at least a portion of a nucleic acid. For amplifying at least a portion of a nucleic acid, a forward primer (i.e., 5' primer) and a reverse primer (i.e., 3' primer) will preferably be used. Forward and reverse primers hybridize to complementary stands of a double stranded nucleic acid, such that upon extension from each primer, a double stranded nucleic acid is amplified.

20

25

30

Probes refer to nucleic acids which hybridize to the region of interest and which are not further extended. For example, a probe is a nucleic acid which hybridizes adjacent to or at a polymorphic region of an AKAP gene and which by hybridization or absence of hybridization to the DNA of a subject will be indicative of the identity of the allelic variant of the polymorphic region of the gene. Preferred probes have a number of nucleotides sufficient to allow specific hybridization to the target nucleotide sequence. Where the target nucleotide sequence is present in a large fragment of DNA, such as a genomic DNA fragment of several tens or hundreds of kilobases, the size of a probe may have to be longer to provide sufficiently specific hybridization, as compared to a probe which is used to detect a target sequence which is present in a shorter fragment of DNA. For example, in some diagnostic methods, a portion of an AKAP gene may first be amplified and thus isolated from the rest of the chromosomal DNA and then hybridized to a probe. In such a situation, a shorter probe will likely provide sufficient specificity of hybridization. For example, a probe having a nucleotide sequence of about 10 nucleotides may be sufficient.

Primers and probes (RNA, DNA (single-stranded or double-stranded), PNA and their analogs) described herein may be labeled with any detectable reporter or signal moiety including, but not limited to radioisotopes, enzymes, antigens, antibodies, spectrophotometric reagents, chemiluminescent reagents, fluorescent and any other light producing chemicals. Additionally, these probes may be modified without changing the substance of their purpose by terminal addition of nucleotides designed to incorporate restriction sites or other useful sequences, proteins, signal generating ligands such as acridinium esters, and/or paramagnetic particles.

These probes may also be modified by the addition of a capture moiety (including, but not limited to para-magnetic particles, biotin, fluorescein, dioxigenin, antigens, antibodies) or attached to the walls of microtiter trays to assist in the solid phase capture and purification of these probes and any DNA or RNA hybridized to these probes. Fluorescein may be used as a signal moiety as well as a capture moiety, the latter by interacting with an anti-fluorescein antibody.

15

20

25

30

Any probe, primer or antisense molecule can be prepared according to methods well known in the art and described, e.g., in Sambrook, J. Fritsch, E.F., and Maniatis, T. (1989(Molecular Cloning: A Laboratory Manual, Cold Spring Harbor Laboratory Press, Cold Spring Harbor, N.Y. For example, discrete fragments of the DNA can be prepared and cloned using restriction enzymes. Alternatively, probes and primers can be prepared using the Polymerase Chain Reaction (PCR) using primers having an appropriate sequence.

Oligonucleotides may be synthesized by standard methods known in the art, e.g. by use of an automated DNA synthesizer (such as are commercially available from Biosearch (Novato, CA); Applied Biosystems (Foster City, CA) and other methods). As examples, phosphorothicate oligonucleotides may be synthesized by the method of Stein et al. (1988, Nucl. Acids Res. 16:3209), methylphosphonate oligonucleotides, for example, can be prepared by use of controlled pore glass polymer supports (Sarin et al., 1988, Proc. Natl. Acad. Sci. U.S.A. 85:7448-7451).

Probes and primers used in the methods of detecting allelic variants in human AKAP10 genes are of sufficient length to specifically hybridize to portions of AKAP10 gene at polymorphic sites. Typically such lengths depend upon the complexity of the source organism genome. For humans such lengths are at least 14-16 nucleotides, and typically may be 20, 30, 50, 100 or more nucleotides.

The methods of detecting polymorphisms in human AKAP10 genes provided herein, probes and primers include the following:

- (1) at least 14 or 16 contiguous nucleotides of the AKAP10 allele or complement thereof, wherein nucleic acid molecule includes at least 5 contiguous nucleotides from nucleotide 2069 to nucleotide 2077 of SEQ. ID. NO: 3;
- (2) at least 14 or 16 contiguous nucleotides of the AKAP10 allele or complement thereof, wherein the nucleic acid includes the nucleotide at position 2073 of SEQ ID No. 1 replaced with G, C or T.
- (3) at least 14 or 16 contiguous nucleotides of the AKAP10 allele or complement thereof, wherein the nucleic acid molecule includes at least 5

15

20

contiguous nucleotides from nucleotide 129556 to nucleotide 129604 of SEQ. ID. NO: 14;

- (4) at least 14 or 16 contiguous nucleotides of the AKAP10 allele or complement thereof, wherein the nucleic acid includes the nucleotide at position 129600 of SEQ ID No. 17 replaced with A, C or T;
- (5) at least 14 or 16 contiguous nucleotides of the AKAP10 allele or complement thereof, wherein the nucleic acid molecule includes at least 5 contiguous nucleotides from nucleotide 83583 to nucleotide 83591 of SEQ. ID. NO: 13:
- (6) at least 14 or 16 contiguous nucleotides of the AKAP10 allele or complement thereof, wherein the nucleic acid includes the nucleotide at position 83587 of SEQ ID No. 17 replaced with G, A or T;
- (7) at least 14 or 16 contiguous nucleotides of the AKAP10 allele or complement thereof, wherein the nucleic acid molecule includes at least 5 contiguous nucleotides from nucleotide 156,273 to nucleotide 156281 of SEQ. ID. NO: 18;
- (8) at least 14 or 16 contiguous nucleotides of the AKAP10 allele or complement thereof, wherein the nucleic acid includes the nucleotide at position 156277 of SEQ ID No. 17 replaced with C, A or G;

With respect to each of the above described probes and primers, they have fewer nucleotides than the sequence of nucleotides 138 to 2126 of SEQ. ID. NO: 1 or fewer nucleotides than the sequence of nucleotides 83,580 to 156,577 of SEQ ID NO: 17.

Antisense compounds may be conveniently and routinely made through
the well-known technique of solid phase synthesis. Equipment for such synthesis
is sold by several vendors including, for example, Applied Biosystems (Foster
City, Calif.). Any other means for such synthesis known in the art may
additionally or alternatively be employed. It is well known to use similar
techniques to prepare oligonucleotides such as the phosphorothioates and
alkylated derivatives.

Antisense compounds are typically 8 to 30 nucleotides in length complementary to a targeted to a nucleic acid molecule and modulates its

10

15

20

expression. The targeted nucleic acid molecule represents the coding strand. For example, for the AKAP10-5 alleleic variant an antisense compound is an antisense oligonucleotide that includes the complement of at least an 8 nucleotide segment of SEQ ID NO: 3 including the nucleotide at position 2073 of SEQ ID NO: 3.

An antisense compound can contain at least one modified nucleotide which can confer nuclease resistance or increase the binding of the antisense compound with the target nucleotide. The antisense compound can containing at least one internucleoside linkage wherein the modified internucleoside linkage of the antisense oligonucleotide can be a phosphorothioate linkage, a morpholino linkage or a peptide-nucleic acid linkage.

Preferred modified oligonucleotide backbones that do not include a phosphorus atom therein have backbones that are formed by short chain alkyl or cycloalkyl internucleoside linkages, mixed heteroatom and alkyl or cycloalkyl internucleoside linkages, or one or more short chain heteroatomic or heterocyclic internucleoside linkages. These include those having morpholino linkages (formed in part from the sugar portion of a nucleoside); siloxane backbones; sulfide, sulfoxide and sulfone backbones; formacetyl and thioformacetyl backbones; methylene formacetyl and thioformacetyl backbones; alkene containing backbones; sulfamate backbones; methyleneimino and methylenehydrazino backbones; sulfonate and sulfonamide backbones; amide backbones; and others having mixed N, O, S and CH₂ component parts.

Representative United States patents that teach the preparation of the above oligonucleosides include, but are not limited to, U.S. Pat. Nos.: 5,034,506; 5,166,315; 5,185,444; 5,214,134; 5,216,141; 5,235,033; 5,264,562; 5,264,564; 5,405,938; 5,434,257; 5,466,677; 5,470,967; 5,489,677; 5,541,307; 5,561,225; 5,596,086; 5,602,240; 5,610,289; 5,602,240; 5,608,046; 5,610,289; 5,618,704; 5,623,070; 5,663,312; 5,633,360; 5,677,437; and 5,677,439, each of which is herein incorporated by reference.

An antisense compound can contain at least one least one modified sugar moiety wherein the modified sugar moiety of the antisense oligonucleotide is a 2'-O-methoxyethyl sugar moiety or a 2'-dimethylaminooxyethoxy sugar moiety.

Modified oligonucleotides may also contain one or more substituted sugar moieties. Preferred oligonucleotides comprise one of the following at the 2' position: OH; F; O--, S--, or N-alkyl; O--, S--, or N-alkenyl; O--, S-- or N-alkynyl; or O-alkyl-O-alkyl, wherein the alkyl, alkenyl and alkynyl may be substituted or unsubstituted C₁ to C₁₀ alkyl or C₂ to C₁₀ alkenyl and alkynyl. Particularly preferred are O[(CH₂)_n O]_m CH₃, O(CH₂)_n OCH₃, O(CH₂)_n NH₂, O(CH₂)_n CH₃, $O(CH_2)_n NH_2$, and $O(CH_2)_n ON[(CH_2)_n CH_3)]_2$, where n and m are from 1 to about 10. Other preferred oligonucleotides comprise one of the following at the 2' position: C₁ to C₁₀ lower alkyl, substituted lower alkyl, alkaryl, aralkyl, O-alkaryl or O-aralkyl, SH, SCH₃, OCN, Cl, Br, CN, CF₃, OCF₃, SOCH₃, SO₂ CH₃, ONO₂, NO₂, N₃, NH₂, heterocycloalkyl, heterocycloalkaryl, aminoalkylamino, polyalkylamino, substituted silyl, an RNA cleaving group, a reporter group, an intercalator, a group for improving the pharmacokinetic properties of an oligonucleotide, or a group for improving the pharmacodynamic properties of an oligonucleotide, and other substituents having similar properties. A preferred modification includes an alkoxyalkoxy group, 2'-methoxyethoxy (2'-O-CH2 CH2 OCH₃, also known as 2'-O-(2-methoxyethyl) or 2'-MOE) (Martin et al., Helv. 20 Chim. Acta, 1995, 78, 486-504). A further preferred modification includes 2'dimethylaminooxyethoxy, i.e., a O(CH2)2 ON(CH3)2 group, also known as 2'-DMAOE.

Other preferred modifications include 2'-methoxy (2'-O-CH₃), 2'aminopropoxy (2'-OCH₂ CH₂ CH₂ NH₂) and 2'-fluoro (2'-F). Similar modifications may also be made at other positions on the oligonucleotide, particularly the 3' position of the sugar on the 3' terminal nucleotide or in 2'-5' linked oligonucleotides and the 5' position of 5' terminal nucleotide. Oligonucleotides may also have sugar mimetics such as cyclobutyl moieties in place of the pentofuranosyl sugar. Representative United States patents that teach the reparation of such modified sugar structures include, but are not limited to, U.S. Pat. Nos.: 4,981,957; 5,118,800; 5,319,080; 5,359,044; 5,393,878;

10

15

25

30

5,446,137; 5,466,786; 5,514,785; 5,519,134; 5,567,811; 5,576,427; 5,591,722; 5,597,909; 5,610,300; 5,627,0531 5,639,873; 5,646,265; 5,658,873; 5,670,633; and 5,700,920, each of which is herein incorporated by reference.

An antisense compound can contain at least one modified nucleobase. Oligonucleotides may also include nucleobase (often referred to in the art simply as "base") modifications or substitutions. As used herein, "unmodified" or "natural" nucleobases include the purine bases adenine (A) and guanine (G), and the pyrimidine bases thymine (T), cytosine (C) and uracil (U). Modified nucleobases include other synthetic and natural nucleobases such as 5methylcytosine (5-me-C), 5-hydroxymethyl cytosine, xanthine, hypoxanthine, 2aminoadenine, 6-methyl and other alkyl derivatives of adenine and guanine, 2propyl and other alkyl derivatives of adenine and guanine, 2-thiouracil, 2thiothymine and 2-thiocytosine, 5-halouracil and cytosine, 5-propynyl uracil and cytosine, 6-azo uracil, cytosine and thymine, 5-uracil (pseudouracil), 4-thiouracil, 8-halo, 8-amino, 8-thiol, 8-thioalkyl, 8-hydroxyl and other 8-substituted adenines and guanines, 5-halo particularly 5-bromo, 5-trifluoromethyl and other 5substituted uracils and cytosines; 7-methylguanine and 7-methyladenine, 8azaguanine and 8-azaadenine, 7-deazaguanine and 7-deazaadenine and 3-20 deazaguanine and 3-deazaadenine.

Further nucleobases include those disclosed in U.S. Pat. No. 3,687,808, those disclosed in The Concise Encyclopedia Of Polymer Science And Engineering, pages 858-859, Kroschwitz, J. I., ed. John Wiley & Sons, 1990, those disclosed by Englisch et al., Angewandte Chemie, International Edition, 1991, 30, 613, and those disclosed by Sanghvi, Y. S., Crooke, S. T., and Lebleu, B. eds., Antisense Research and Applications, CRC Press, Boca Raton, 1993, pp. 289-302. Certain of these nucleobases are particularly useful for increasing the binding affinity of the oligomeric compounds. These include 5substituted pyrimidines, 6-azapyrimidines and N-2, N-6 and O-6 substituted purines, including 2-aminopropyl-adenine, 5-propynyluracil and 5propynylcytosine. 5-methylcytosine substitutions have been shown to increase nucleic acid duplex stability by 0.6-1.2.degree. C. (Sanghvi, Y. S., Crooke, S. T.

15

20

25

30

and Lebleu, B., eds., Antisense Research and Applications, CRC Press, Boca Raton, 1993, pp. 276-278) and are presently preferred base substitutions, even more particularly when combined with 2'-O-methoxyethyl sugar modifications.

The antisense compound can be a chimeric oligonucleotide.

Chimeric antisense compounds may be formed as composite structures of two or more oligonucleotides, modified oligonucleotides, oligonucleosides and/or oligonucleotide mimetics as described above. Such compounds have also been referred to in the art as hybrids or gapmers. Representative United States patents that teach the preparation of such hybrid structures include, but are not limited to, U.S. Pat. Nos.: 5,013,830; 5,149,797; 5,220,007; 5,256,775; 5,366,878; 5,403,711; 5,491,133; 5,565,350; 5,623,065; 5,652,355; 5,652,356; and 5,700,922, each of which is herein incorporated by reference.

E. Association of AKAP10 Allelic Variants with Morbidity or Increased Mortality

Polymorphisms of the genome can lead to altered gene function, protein function or mRNA instability. To identify those polymorphisms that have clinical relevance is the goal of a world-wide scientific effort. Discovery of such polymorphisms will have a fundamental impact on the identification and development of diagnostics and drug discovery. The strategy to identify valuable polymorphisms is cumbersome and dependent upon the availability of many large patient and control cohorts to show disease association. Furthermore, genes, and their associated polymorphisms, that cause a general risk of the population to suffer from any disease will escape these case/control studies entirely.

A morbidity susceptibility gene could be a gene that is expressed in many different cell types or tissues (housekeeping gene) and its altered function can facilitate the expression of a clinical phenotype caused by a disease-specific susceptibility gene that is involved in a pathway specific for this disorder. In other words, morbidity susceptibility genes might predispose people to develop a distinct disease according to their genetic make-up for this disease. Candidates for these genes may involve basic cellular processes such as: transcription, translation, heat-shock proteins, protein trafficking, DNA repair, assembly

15

20

30

systems for subcellular structures (e.g., mitochondria, peroxysomes and other cellular microbodies), receptor signaling cascades, immunology, etc. Those pathways control the quality of life at the cellular level as well as for the entire organism. Mutations/polymorphisms located in genes encoding proteins for those pathways can reduce the fitness of cells and make the organism more susceptible to express the clinical phenotype caused by the action of a disease-specific susceptibility gene. Therefore, these morbidity susceptibility genes can be potentially involved in a whole variety of different complex diseases if not in all.

An example of possible candidate morbidity susceptibility genes are mutants of the A kinase anchoring protein (AKAP) genes. Protein phosphorylation is an important mechanism for enzyme regulation and signal transduction in eukaryotic cells. cAMP dependent protein kinsae (PKA) mediates a variety of hormonal and neurotransmitter responses by phospyhorylating a wide variety of substrates including enzymes, membrane receptors, ion channels and transcription factors. AKAPs direct the subcellular localization of cAMP-dependent protein kinase by binding to its regulatory subunits and therefore plays role in G-protein mediated receptor-signalling pathways (see, e.g., Huang et al. (1997) Proc. Natl. Acad. Sci., USA 94:11184). AKAPs have a PKA binding region located in the COOH-terminal portion.

Polymorphic AKAP genes, such as those provided herein, serve as markers for detecting predisposition to disease and various conditions. Also, the AKAP alleles and gene products, especially the AKAP-10-5 gene product should be suitable pharmaceutical targets and gene therapy targets.

25 F. Databases

Use of databases containing sets of parameters associated with subjects in populations selected on the basis of apparent good health, not manifesting detectable disease (i.e., an unbiased population not selected for any disease state), allows for identification of such morbidity susceptibility genes (see, U.S. Provisional Application Serial No. 60/159,176 filed October 13, 1999, U.S. Provisional Application Serial No. 60/217,658 filed on July 10, 2000 and U.S. Application Serial No. 09/687,483 filed October 13, 2000).

15

25

For example, in a method for determining susceptibility to morbidity, increased or early mortality, or morbidity and increased or early mortality in a human being, provided herein, exemplary steps include detecting the presence or absence of an allele of the human AKAP-10 containing other than an A at position 2073 of the coding sequence of the AKAP-10 gene; wherein the presence of an allele containing other than an A at position 2073 is indicative of increased susceptibility to morbidity, increased or early mortality, or morbidity and increased or early mortality as compared to the susceptibility of a human being who does not comprise an allele containing other than an A at position 2073 of the AKAP-10 gene coding sequence.

As noted above, using a healthy patient database (see, U.S. Provisional Application Serial No. 60/159,176, U.S. Provisional Application Serial No. 60/217,658 and U.S. Application Serial No. 09/687,483 filed October 13, 2000), the frequency of occurrence of the AKAP10-5 SNP in such a population was found to decrease with age, thus making the allele a potential morbidity susceptibility gene, a gene associated with increased mortality or both. Using the healthy database, it was found that the homozygote GG genotype drops in the elderly population (over >60 years), by a statistically significant amount, p=0.02.

20 G. Transgenic Animals

Methods for making transgenic animals using a variety of transgenes have been described in Wagner et al., Proc. Nat. Acad. Sc. U.S.A., Vol. 78, p. 5016, 1981; Stewart et al., Science, Vol. 217, p. 1046, 1982; Constantini et al., Nature, Vol. 294, p. 92, 1981; Lacy et al., Cell, Vol. 34, p. 343, 1983; McKnight et al., Cell, Vol. 34, p. 335, 1983; Brinstar et al., Nature, Vol. 306, p. 332, 1983; Palmiter et al., Nature, Vol. 300, p. 611, 1982; Palmiter et al., Cell, Vol. 29, p. 701, 1982 and Palmiter et al., Science, Vol. 222, p. 809, 1983. Such methods are described in U.S. Patent Nos. 6,175,057; 6,180,849 and 6,133,502.

The term "transgene" is used herein to describe genetic material that has been or is about to be artificially inserted into the genome of a mammalian cell, particularly a mammalian cell of a living animal. The transgene is used to

15

20

25

30

transform a cell, meaning that a permanent or transient genetic change, preferably a permanent genetic change, is induced in a cell following incorporation of exogenous DNA. A permanent genetic change is generally achieved by introduction of the DNA into the genome of the cell. Vectors for stable integration include, but are not limited to, plasmids, retroviruses and other animal viruses and YACS. Of interest are transgenic mammals, including, but are not limited to, cows, pigs, goats, horses and others, and particularly rodents, including rats and mice. Preferably, the transgenic-animals are mice.

Transgenic animals contain an exogenous nucleic acid sequence present as an extrachromosomal element or stably integrated in all or a portion of its cells, especially germ cells. Unless otherwise indicated, it will be assumed that a transgenic animal contains stable changes to the germline sequence. During the initial construction of the animal, "chimeras" or "chimeric animals" are generated, in which only a subset of cells have the altered genome. Chimeras are primarily used for breeding purposes in order to generate the desired transgenic animal. Animals having a heterozygous alteration are generated by breeding of chimeras. Male and female heterozygotes are typically bred to generate homozygous animals.

The exogenous gene is usually either from a different species than the animal host, or is otherwise altered in its coding or non-coding sequence. The introduced gene may be a wild-type gene, naturally occurring polymorphism or a genetically manipulated sequence, for example having deletions, substitutions or insertions in the coding or non-coding regions. When the introduced gene is a coding sequence, it is usually operably linked to a promoter, which may be constitutive or inducible, and other regulatory sequences required for expression in the host animal.

Transgenic animals can comprise other genetic alterations in addition to the presence of alleles of AKAP genes. For example, the genome can be altered to affect the function of the endogenous genes, contain marker genes, or contain other genetic alterations (e.g., alleles of other genes associated with cardiovascular disease).

15

20

25

30

A "knock-out" of a gene means an alteration in the sequence of the gene that results in a decrease of function of the target gene, preferably such that target gene expression is undetectable or insignificant. A knock-out of an endogenous AKAP gene means that function of the gene has been substantially decreased so that expression is not detectable or only present at insignificant levels. "Knock-out" transgenics can be transgenic animals having a heterozygous knock-out of an AKAP gene or a homozygous knock-out. "Knock-outs" also include conditional knock-outs, where alteration of the target gene can occur upon, for example, exposure of the animal to a substance that promotes target gene alteration, introduction of an enzyme that promotes recombination at the target gene site (e.g., Cre in the Cre-lox system), or other method for directing the target gene alteration postnatally.

A "knock-in" of a target gene means an alteration in a host cell genome that results in altered expression (e.g., increased (including ectopic)) of the target gene, e.g., by introduction of an additional copy of the target gene, or by operatively inserting a regulatory sequence that provides for enhanced expression of an endogenous copy of the target gene. "Knock-in" transgenics of interest can be transgenic animals having a knock-in of an AKAP gene. Such transgenics can be heterozygous or homozygous for the knock-in gene. "Knock-ins" also encompass conditional knock-ins.

A construct is suitable for use in the generation of transgenic animals if it allows the desired level of expression of an AKAP encoding sequence or the encoding sequence of another gene associated with cardiovascular disease. Methods of isolating and cloning a desired sequence, as well as suitable constructs for expression of a selected sequence in a host animal, are well known in the art and are described below.

For the introduction of a gene into the subject animal, it is generally advantageous to use the gene as a gene construct wherein the gene is ligated downstream of a promoter capable of and operably linked to expressing the gene in the subject animal cells. Specifically, a transgenic non-human mammal showing high expression of the desired gene can be created by microinjecting a vector ligated with said gene into a fertilized egg of the subject non-human

10

15

20

mammal (e.g., rat fertilized egg) downstream of various promoters capable of expressing the protein and/or the corresponding protein derived from various mammals (rabbits, dogs, cats, guinea pigs, hamsters, rats, mice etc., preferably rats etc.)

Useful vectors include Escherichia coli-derived plasmids, Bacillus subtilisderived plasmids, yeast-derived plasmids, bacteriophages such as lambda, phage, retroviruses such as Moloney leukemia virus, and animal viruses such as vaccinia virus or baculovirus.

Useful promoters for such gene expression regulation include, for example, promoters for genes derived from viruses (cytomegalovirus, Moloney leukemia virus, JC virus, breast cancer virus etc.), and promoters for genes derived from various mammals (humans, rabbits, dogs, cats, guinea pigs, hamsters, rats, mice etc.) and birds (chickens etc.) (e.g., genes for albumin, insulin II, erythropoietin, endothelin, osteocalcin, muscular creatine kinase, platelet-derived growth factor beta, keratins K1, K10 and K14, collagen types I and II, atrial natriuretic factor, dopamine beta-hydroxylase, endothelial receptor tyrosine kinase (generally abbreviated Tie2), sodium-potassium adenosine triphosphorylase (generally abbreviated Na,K-ATPase), neurofilament light chain, metallothioneins I and IIA, metalloproteinase I tissue inhibitor, MHC class I antigen (generally abbreviated H-2L), smooth muscle alpha actin, polypeptide chain elongation factor 1 alpha (EF-1 alpha), beta actin, alpha and beta myosin heavy chains, myosin light chains 1 and 2, myelin base protein, serum amyloid component, myoglobin, renin etc.).

It is preferable that the above-mentioned vectors have a sequence for terminating the transcription of the desired messenger RNA in the transgenic animal (generally referred to as terminator); for example, gene expression can be manipulated using a sequence with such function contained in various genes derived from viruses, mammals and birds. Preferably, the simian virus SV40 terminator etc. are commonly used. Additionally, for the purpose of increasing the expression of the desired gene, the splicing signal and enhancer region of each gene, a portion of the intron of a eukaryotic organism gene may be ligated

15

20

25

30

5' upstream of the promoter region, or between the promoter region and the translational region, or 3' downstream of the translational region as desired.

A translational region for a protein of interest can be obtained using the entire or portion of genomic DNA of blood, kidney or fibroblast origin from various mammals (humans, rabbits, dogs, cats, guinea pigs, hamsters, rats, mice etc.) or of various commercially available genomic DNA libraries, as a starting material, or using complementary DNA prepared by a known method from RNA of blood, kidney or fibroblast origin as a starting material. Also, an exogenous gene can be obtained using complementary DNA prepared by a known method from RNA of human fibroblast origin as a starting material. All these translational regions can be used in transgenic animals.

To obtain the translational region, it is possible to prepare DNA incorporating an exogenous gene encoding the protein of interest in which the gene is ligated downstream of the above-mentioned promoter (preferably upstream of the translation termination site) as a gene construct capable of being expressed in the transgenic animal.

DNA constructs for random integration need not include regions of homology to mediate recombination. Where homologous recombination is desired, the DNA constructs will comprise at least a portion of the target gene with the desired genetic modification, and will include regions of homology to the target locus. Conveniently, markers for positive and negative selection are included. Methods for generating cells having targeted gene modifications through homologous recombination are known in the art. For various techniques for transfecting mammalian cells, see Keown *et al.* (1990) Methods in Enzymology 185:527-537.

The transgenic animal can be created by introducing an AKAP gene construct into, for example, an unfertilized egg, a fertilized egg, a spermatozoon or a germinal cell containing a primordial germinal cell thereof, preferably in the embryogenic stage in the development of a non-human mammal (more preferably in the single-cell or fertilized cell stage and generally before the 8-cell phase), by standard means, such as the calcium phosphate method, the electric pulse method, the lipofection method, the agglutination method, the microinjection

30

method, the particle gun method, the DEAE-dextran method and other such method. Also, it is possible to introduce a desired AKAP gene into a somatic cell, a living organ, a tissue cell or other cell, by gene transformation methods, and use it for cell culture, tissue culture and any other method of propagation. Furthermore, these cells may be fused with the above-described germinal cell by a commonly known cell fusion method to create a transgenic animal.

For embryonic stem (ES) cells, an ES cell line may be employed, or embryonic cells may be obtained freshly from a host, e.g. mouse, rat, guinea pig, etc. Such cells are grown on an appropriate fibroblast-feeder layer or grown in the presence of appropriate growth factors, such as leukemia inhibiting factor (LIF). When ES cells have been transformed, they may be used to produce transgenic animals. After transformation, the cells are plated onto a feeder layer in an appropriate medium. Cells containing the construct may be detected by employing a selective medium. After sufficient time for colonies to grow, they are picked and analyzed for the occurrence of homologous recombination or integration of the construct. Those colonies that are positive may then be used for embryo manipulation and blastocyst injection. Blastocysts are obtained from 4 to 6 week old superovulated females. The ES cells are trypsinized, and the modified cells are injected into the blastocoel of the blastocyst. After injection, the blastocysts are returned to each uterine horn of pseudopregnant females. Females are then allowed to go to term and the resulting litters screened for mutant cells having the construct. By providing for a different phenotype of the blastocyst and the ES cells, chimeric progeny can be readily detected. The chimeric animals are screened for the presence of the modified gene and males and females having the modification are mated to produce homozygous progeny. If the gene alterations cause lethality at some point in development, tissues or organs can be maintained as allogeneic or congenic grafts or transplants, or in in vitro culture.

Animals containing more than one transgene, such as allelic variants of AKAP genes and/or other genes associated with morbidity and/or mortality can be made by sequentially introducing individual alleles into an animal in order to

produce the desired phenotype (manifestation of morbidity and/or predisposition to early mortality).

H. Effect of Allelic Variants

The effect of an allelic variant on a AKAP10 gene expression (amount of mRNA, mRNA stability) and AKAP protein (amount, stability, intracellular localization, activity) can be determined according to methods known in the art. Allelic variants of AKAP genes can be assayed individually or in combination.

In general, any method known to those skilled in the art of determining the presence or absence of a specific messenger RNA transcript or a specific translated protein can be used to presence of absence of a polymorphic protein or a polymorphism in the genetic sequence.

1. RNA Analysis

10

15

20

25

30

A. Northern Blot Detection of RNA

The northern blot technique is used to identify a RNA fragment of a specific size from a complex population of RNA using gel electrophoresis and nucleic acid hybridization. Northern blotting is a well-known technique in the art. Northern blot analysis is commonly used to detect specific RNA transcripts expressed in a variety of biological samples and have been described in Sambrook, J. et al. (Molecular Cloning, 3rd Edition, Cold Spring Harbor Press).

Briefly, total RNA is isolated from any biological sample by the method of Chomczynski and Sacchi (Anal. Biochem. (1987) 162, 156-159). Polyadenylated mRNA is purified from total RNA using mini-oligo (dT) cellulose spin column kit with methods as outlined by the suppliers (Invitrogen, Carlsbad CA.). Denatured RNA is electrophoresed through a denaturing 1.5% agarose gel and transferred onto a nitrocellulose or nylon based matrix. The mRNA is detected by hybridization of a radiolabeled or biotinylated oligonucleotide probe specific to the polymorphic regions as disclosed herein.

B. Dot Blot/Slot Blot

Specific RNA transcripts can be detected using dot and slot blot assays to evaluate the presence of a specific nucleic acid sequence in a complex mix of nucleic acids. Specific RNA transcripts can be detected by adding the RNA mixture to a prepared nitrocellulose or nylon membrane. RNA is detected by the

25

30

hybridization of a radiolabeled or biotinylated oligonucleotide probe complementary to the AKAP sequences as disclosed herein.

C. RT-PCR

The RT-PCR reaction may be performed, as described by K.-Q. Hu et al.,

Virology 181:721-726 (1991), as follows: the extracted mRNA is transcribed in a reaction mixture 1 micromolar antisense primer, and 25 U AMV (avian myeloblastosis virus) or MMLV (Moloney murine leukemia virus) reverse transcriptase. Reverse transcription is performed and the cDNA is amplified in a PCR reaction volume with Taq polymerase. Optimal conditions for cDNA synthesis and thermal cycling can be readily determined by those skilled in the art.

2. Protein and Polypeptide Detection

Expression of Protein in a Cell Line

Using the disclosed nucleic acids AKAP10 proteins may be expressed in a recombinantly engineered cell such as bacteria, yeast, insect, mammalian, or plant cells. Those of skill in the art are knowledgeable in the numerous expression systems available for expression of a nucleic acid encoding proteins such as polymorphic human AKAP10 proteins.

A. Expression of AKAP Protein

The isolated nucleic acid encoding a full-length polymorphic human AKAP10 protein, or a portion thereof, such as a fragment containing the site of the polymorphism, may be introduced into a vector for transfer into host cells. Fragments of the polymorphic human AKAP10 proteins can be produced by those skilled in the art, without undue experimentation, by eliminating portions of the coding sequence from the isolated nucleic acids encoding the full-length proteins.

Expression vectors are used expression of the protein in the host cell is desired. An expression vector includes vectors capable of expressing nucleic acids that are operatively linked with regulatory sequences, such as promoter regions, that are capable of effecting expression of such nucleic acids. Thus, an expression vector refers to a recombinant DNA or RNA construct, such as a plasmid, a phage, recombinant virus or other vector that, upon introduction into

15

20

25

30

an appropriate host cell, results in expression of the cloned DNA. Appropriate expression vectors are well known to those of skill in the art and include those that are replicable in eukaryotic cells and/or prokaryotic cells and those that remain episomal or those which integrate into the host cell genome. Such plasmids for expression of polymorphic human AKAP10-encoding nucleic acids in eukaryotic host cells, particularly mammalian cells, include cytomegalovirus (CMV) promoter-containing vectors, such as pCMV5, the pSV2dhfr expression vectors, which contain the SV40 early promoter, mouse dhfr gene, SV40 polyadenylation and splice sites and sequences necessary for maintaining the vector in bacteria, and MMTV promoter-based vectors.

The nucleic acids encoding polymorphic human AKAP10 proteins, and vectors and cells containing the nucleic acids as provided herein permit production of the polymorphic proteins, as well as antibodies to the proteins. This provides a means to prepare synthetic or recombinant polymorphic human AKAP10 proteins and fragments thereof that are substantially free of contamination from other AKAPs and proteins in general, the presence of which can interfere with analysis of the polymorphic proteins. In addition, the polymorphic proteins may be expressed in combination with selected other proteins that AKAP10 may associate with in cells. The ability to selectively express the polymorphic AKAP10 proteins alone or in combination with other selected proteins makes it possible to observe the functioning of the recombinant polymorphic proteins within the environment of a cell. The expression of isolated nucleic acids encoding an AKAP protein will typically be achieved by operably linking, for example, the DNA or cDNA to a promoter (which is either constitutive or regulatable), followed by incorporation into an expression vector. The vectors can be suitable for replication and integration in either prokaryotes or eukaryotes. Typical expression vectors contain transcription and translation terminators, initiation sequences, and promoters useful for regulation of the expression of the DNA encoding a protein. To obtain high level expression of a cloned gene, it is desirable to construct expression vectors which contain, a strong promoter to direct transcription, a ribosome binding site for translational initiation, and a transcription/translation terminator.

The skilled artisan recognizes that modifications can be made to an AKAP10 protein without diminishing its biological activity. Some modifications may be made to facilitate the cloning, expression, or incorporation of the targeting molecule into a fusion protein. Such modifications are well known to those of skill in the art and include, for example, a methionine added at the amino terminus to provide an initiation site, or additional amino acids (e.g., poly His) placed on either terminus to create conveniently located purification sequences. Restriction sites or termination codons can also be introduced. There are expression vectors that specifically allow the expression of functional proteins. One such vector, Plasmid 577, described in U.S. Pat. No. 6,020,122 and 10 incorporated herein by reference, has been constructed for the expression of secreted antigens in a permanent cell line. This plasmid contains the following DNA segments: (a) a fragment of pBR322 containing bacterial beta-lactamase and origin of DNA replication; (b) a cassette directing expression of a neomycin resistance gene under control of HSV-1 thymidine kinase promoter and poly-A 15 addition signals; (c) a cassette directing expression of a dihydrofolate reductase gene under the control of a SV-40 promoter and poly-A addition signals; (d) cassette directing expression of a rabbit immunoglobulin heavy chain signal sequence fused to a modified hepatitis C virus (HCV) E2 protein under the control of the Simian Virus 40 T-Ag promoter and transcription enhancer, the 20 hepatitis B virus surface antigen (HBsAg) enhancer I followed by a fragment of Herpes Simplex Virus-1 (HSV-1) genome providing poly-A addition signals; and (e) a fragment of Simian Virus 40 genome late region of no function in this plasmid. All of the segments of the vector were assembled by standard methods known to those skilled in the art of molecular biology. Plasmids for the 25 expression of secreted AKAP proteins can be constructed by replacing the hepatitis C virus E2 protein coding sequence in plasmid 577 with a AKAP sequence of SEQ ID NO: 3 or a fragment thereof. The resulting plasmid is transfected into CHO/dhfr-cells (DXB-111) (Uriacio, et al., PNAS 77, 4451-4466; 1980); these cells are available from the A.T.C.C., 12301 Parklawn Drive, 30 Rockville, Md. 20852, under Accession No. CRL 9096), using the cationic

25

30

liposome-mediated procedure (P. L. Felgner et al., PNAS 84:7413-7417 (1987). Proteins are secreted into the cell culture media.

Incorporation of cloned DNA into a suitable expression vector, transfection of cells with a plasmid vector or a combination of plasmid vectors, each encoding one or more distinct proteins or with linear DNA, and selection of transfected cells are well known in the art (see, e.g., Sambrook et al. (1989) Molecular Cloning: A Laboratory Manual, Second Edition, Cold Spring Harbor Laboratory Press). Heterologous nucleic acid may be introduced into host cells by any method known to those of skill in the art, such as transfection with a vector encoding the heterologous nucleic acid by CaPO4 precipitation (see, e.g., Wigler et al. (1979) Proc. Natl. Acad. Sci. USA 76:1373-1376) or lipofectamine (GIBCO BRL #18324-012). Recombinant cells can then be cultured under conditions whereby the polymorphic human AKAP10 protein encoded by the nucleic acid is expressed. Suitable host cells include mammalian cells (e.g., HEK293, including but are not limited to, those described in U.S. Patent No. 5,024,939 to Gorman (see, also, Stillman et al. (1985) Mol. Cell. Biol. 5:2051-2060); also, HEK293 cells available from ATCC under accession #CRL 1573), CHO, COS, BHKBI and Ltk cells, mouse monocyte macrophage P388D1 and J774A-1 cells (available from ATCC, Rockville, MD) and others known to those of skill in this art), yeast cells, including, but are not limited to, Pichia pastoris, Saccharomyces cerevisiae, Candida tropicalis, Hansenula polymorpha, human cells and bacterial cells, including, but are not limited to, Escherichia coli. Xenopus oöcytes may also be used for expression of in vitro RNA transcripts of the DNA.

Heterologous nucleic acid may be stably incorporated into cells or may be transiently expressed using methods known in the art. Stably transfected mammalian cells may be prepared by transfecting cells with an expression vector having a selectable marker gene (such as, for example, the gene for thymidine kinase, dihydrofolate reductase, neomycin resistance, and the like), and growing the transfected cells under conditions selective for cells expressing the marker gene. To prepare transient transfectants, mammalian cells are transfected with a reporter gene (such as the *E. coli* ß-galactosidase gene) to monitor transfection

. 10

15

20

25

efficiency. Selectable marker genes are not included in the transient transfections because the transfectants are typically not grown under selective conditions, and are usually analyzed within a few days after transfection.

Heterologous nucleic acid may be maintained in the cell as an episomal element or may be integrated into chromosomal DNA of the cell. The resulting recombinant cells may then be cultured or subcultured (or passaged, in the case of mammalian cells) from such a culture or a subculture thereof. Methods for transfection, injection and culturing recombinant cells are known to the skilled artisan. Similarly, the polymorphic human AKAP10 proteins or fragments thereof may be purified using protein purification methods known to those of skill in the art. For example, antibodies or other ligands that specifically bind to the proteins may be used for affinity purification and immunoprecipitation of the proteins.

B. Protein Purification

The AKAP10 proteins may be purified by standard techniques well known to those of skill in the art. Recombinantly produced proteins can be directly expressed or expressed as a fusion protein. The recombinant protein is purified by a combination of cell lysis (e.g., sonication, French press) and affinity chromatography. The proteins, recombinant or synthetic, may be purified to substantial purity by standard techniques well known in the art, including detergent solubilization, selective precipitation with such substances as ammonium sulfate, column chromatography, immunopurification methods, and others. (See, for example, R. Scopes, Protein Purification: Principles and Practice, Springer-Verlag: New York (1982); Deutscher, Guide to Protein Purification, Academic Press (1990)). For example, antibodies may be raised to the proteins as described herein. Purification from E. coli can be achieved following procedures described in U.S. Pat. No. 4,511,503. The protein may then be isolated from cells expressing the protein and further purified by standard protein chemistry techniques as described herein. Detection of the expressed protein is achieved by methods known in the art and include, for example, radioimmunoassays, Western blotting techniques or immunoprecipitation.

30

3. Immunodetection of the AKAP10 protein.

Generally, the AKAP proteins, when presented as an immunogen, should elicit production of a specifically reactive antibody. Immunoassays for determining binding are well known to those of skill in the art, as are methods of making and assaying for antibody binding specificity/affinity. Exemplary immunoassay formats include ELISA, competitive immunoassays, radioimmunoassays, Western blots, indirect immunofluorescent assays, in vivo expression or immunization protocols with purified protein preparations. In general, the detection of immunocomplex formation is well known in the art and may be achieved by methods generally based upon the detection of a label or marker, such as any of the radioactive, fluorescent, biological or enzymatic tags. Labels are well known to those skilled in the art (see U.S. Pat. Nos. 3,817,837; 3,850,752; 3,939,350; 3,996,345; 4,277,437; 4,275,149 and 4,366,241, each incorporated herein by reference). Of course, one may find additional advantages through the use of a secondary binding ligand such as a second antibody or a biotin/avidin ligand binding arrangement, as is known in the art.

A. Production of Polyclonal Antisera Against AKAP

Antibodies can be raised to AKAP proteins, including individual, allelic, strain, or species variants, and fragments thereof, both in their naturally occurring (full-length) forms and in recombinant forms. Additionally, antibodies are raised to these proteins in either their native configurations or in non-native configurations. Anti-idiotypic antibodies can also be generated. A variety of analytic methods are available to generate a hydrophilicity profile of proteins. Such methods can be used to guide the artisan in the selection of peptides for use in the generation or selection of antibodies which are specifically reactive, under immunogenic conditions. See, e.g., J. Janin, Nature, 277 (1979) 491-492; Wolfenden, et al., Biochemistry 20(1981) 849-855; Kyte and Doolite, J. Mol. Biol. 157 (1982) 105-132; Rose, et al., Science 229 (1985) 834-838.

A number of immunogens can be used to produce antibodies specifically reactive with AKAP proteins. An isolated recombinant, synthetic, or native polynucleotide are the preferred immunogens (antigen) for the production of monoclonal or polyclonal antibodies. Polypeptides are typically denatured, and

15

20

25

30

optionally reduced, prior to formation of antibodies for screening expression libraries or other assays in which a putative AKAP protein is expressed or denatured in a non-native secondary, tertiary, or quartenary structure.

The AKAP protein (SEQ ID NO: 4, or a portion thereof) is injected into an animal capable of producing antibodies. Either monoclonal or polyclonal antibodies can be generated for subsequent use in immunoassays to measure the presence and quantity of the protein. Methods of producing polyclonal antibodies are known to those of skill in the art. In brief, an immunogen (antigen), preferably a purified protein, a protein coupled to an appropriate carrier (e.g., GST, keyhole limpet hemanocyanin, etc.), or a protein incorporated into an immunization vector such as a recombinant vaccinia virus (see, U.S. Pat. No. 4,722,848) is mixed with an adjuvant and animals are immunized with the mixture. The animal's immune response to the immunogen preparation is monitored by taking test bleeds and determining the titer of reactivity to the protein of interest. When appropriately high titers of antibody to the immunogen are obtained, blood is collected from the animal and antisera are prepared. Further fractionation of the antisera to enrich for antibodies reactive to the protein is performed where desired (See, e.g., Coligan, Current Protocols in Immunology, Wiley/Greene, NY (1991); and Harlow and Lane, Antibodies: A Laboratory Manual, Cold Spring Harbor Press, NY (1989)).

B. Western Blotting of Tissue Samples for the AKAP protein

Biological samples are homogenized in SDS-PAGE sample buffer (50 mM Tris-HCl, pH 6.8, 100 mM dithiothreitol, 2% SDS, 0.1% bromophenol blue, 10% glycerol), heated at 100 degrees Celsius for 10 min and run on a 14% SDS-PAGE with a 25 mM Tris-HCl, pH 8.3, 250 mM Glycine, 0.1% SDS running buffer. The proteins are electrophoretically transferred to nitrocellulose in a transfer buffer containing 39 mM glycine, 48 mM Tris-HCl, pH 8.3, 0.037% SDS, 20% methanol. The nitrocellulose is dried at room temperature for 60 min and then blocked with a PBS solution containing either bovine serum albumin or 5% nonfat dried milk for 2 hours at 4 degrees Celsius.

The filter is placed in a heat-sealable plastic bag containing a solution of 5% nonfat dried milk in PBS with a 1:100 to 1:2000 dilution of affinity purified

15

20

anti-AKAP peptide antibodies, incubated at 4 degrees Celsius for 2 hours, followed by three 10 min washes in PBS. An alkaline phosphatase conjugated secondary antibody (i.e., anti-mouse/rabbit IgG), is added at a 1:200 to 1:2000 dilution to the filter in a 150 mM NaCl, 50 mM Tris-HCl, pH 7.5 buffer and incubated for 1 h at room temperature.

The bands are visualized upon the addition and development of a chromogenic substrate such as 5-bromo-4-chloro-3-indolyl phosphate/nitro blue tetrazolium (BCIP/NBT). The filter is incubated in the solution at room temperature until the bands develop to the desired intensity. Molecular mass determination is made based upon the mobility of pre-stained molecular weight standards (Rainbow markers, Amersham, Arlington Heights, III.).

C. Microparticle Enzyme Immunoassay (MEIA)

AKAP10 proteins and peptides are detected using a standard commercialized antigen competition EIA assay or polyclonal antibody sandwich EIA assay on the IMx.RTM Analyzer (Abbott Laboratories, Abbott Park, III.). Samples containing the AKAP10 protein are incubated in the presence of anti-AKAP10 coated microparticles. The microparticles are washed and secondary polyclonal anti-AKAP10 antibodies conjugated with detectable entities (i.e., alkaline phosphatase) are added and incubated with the microparticles. The microparticles are washed and the bound antibody/antigen/antibody complexes are detected by adding a substrate (i.e. 4-methyl umbelliferyl phosphate) (MUP) that will react with the secondary conjugated antibody to generate a detectable signal.

D. Immunocytochemistry

Intracellular localization of the AKAP10 protein can be determined by a variety of in situ hybridization techniques. In one method cells are fixed with fixed in 4% paraformaldehyde in 0.1 M phosphate buffered saline (PBS; pH7.4) for 5 min., rinsed in PBS for 2 min., dilapidated and dehydrated in an ethanol series (50, 70 and 95%) (5 min. each and stored in 95% ethanol at 4 degrees Celsius).

10

15

20

25

30

The cells are stained with the primary anti-AKAP10 antibody and a mixture of secondary antibodies used for detection. Laser-scanning confocal microscopy is performed to localize the AKAP10 protein.

4. Binding Assays

Assays to measure the interaction between AKAP10 and the regulatory subunits RI and/or RII of the Protein Kinase A holoenzyme include immobilized binding assays, solution binding assays and the like. In some instances, it may be desirable to monitor binding between AKAP10 and PKA. In other instances, it may be desirable to specifically monitor the binding between AKAP10 and a cellular component (other than PKA) to which it binds. Assays may be performed in a variety of formats, including cell-based assays, such as di-hybrid screening or complementation assays as described in U.S. Pat. No. 5,283,173 and Patent Cooperation Treaty (PCT) Publication No. WO 91/16457, respectively. Assays of this type are particularly useful for assessing intracellular efficacy of test compounds. Non-cell-based assays include scintillation proximity assays, cAMP competition assays, ELISA assays, radioimmunoassays, chemiluminescent assays, and the like. Such assay procedures are well known in the art and generally described, e.g., in Boudet et al., J. Immunol. Meth., 142:73-82 (1991); Ngai et al., J. Immunol. Meth., 158:267-276 (1993); Pruslin et al., J. Immunol. Meth., 137:27-35 (1991); Udenfriend et al., Proc. Natl. Acad. Sci. USA, 82:8672-8676 (1985); Udenfriend et al., Anal. Biochem., 161:494-500 (1987); Bosworth and Towers, Nature, 341:167-168 (1989); Gilman, Proc. Natl. Acad. Sci. USA, 67:305-312 (1970); and U.S. Pat. No. 4,568,649.

A. In vitro binding assay

Huang et al. Proc. Natl. Acad. Sci. USA, 272:8057-8064 (1997); Protein preparations containing AKAP10 are incubated with glutathione resin in PBS for 2 hours at 4 degrees Celsius with 0.1% Triton X-100, 1 mM phenylmethylsulfonyl fluoride, 1 mM EDTA, 5 mM benzamidine, and 5 mM β -mercapthoethanol and washed extensively with the same buffer. 200 micrograms of PKA regulatory subunit RII and/or RI were added to the resin and incubated at 4 degrees Celsius. Proteins associated with the AKAP10 are eluted

10

15

20

25

30

and analyzed by Laemmli electrophoresis. The proteins were visualized by Coomassie Staining. PKA proteins can be radiolabeled or labeled with a flurophore to allow detection.

B. PKA phosphorylation of protein substrate

Cyclic AMP-dependent protein kinase (PKA) catalyzes the transfer of gamma phosphate from adenosine triphosphate (ATP) to a serine or threonine residue in a protein substrate. A short synthetic peptide (Leucine-Arg-Arg-Alanine-Serine-Leucine-Glycine or LRRASLG) is used as a substrate to assay the specific type of PKA activity as described in Pearson et. al., Methods of Enzymology 200, 62-81 (1991).

The PKA assay is typically carried out in a reaction of the enzyme with a peptide substrate and gamma ³²P-ATP followed by separation of the ³²P-peptide product from the unreacted gamma ³²P-ATP on a phosphocellulose membrane. This method requires at least one basic amino acid residue in the peptide substrate. The peptide substrate can be tagged with a biotin group so that the biotinylated ³²P-peptide product consistently binds to a streptavidin membrane in a manner independent of the peptide sequence as described in Goueli et al Analytical Biochemistry 225, 10-17, (1995). The separation of the ³²P-peptide product from the free gamma ³²P-ATP using affinity binding and ultrafiltration separation to analyze a mixture sample as described in U.S. Patent No. 5,869,275.

If the mutation is located in an intron, the effect of the mutation can be determined, e.g., by producing transgenic animals in which the allelic variant has been introduced and in which the wild-type gene or predominant allele may have been knocked out. Comparison of the level of expression of the protein in the mice transgenic for the allelic variant with mice transgenic for the predominant allele will reveal whether the mutation results in increased or decreased synthesis of the associated protein and/or aberrant tissue distribution or intracellular localization of the associated protein. Such analysis could also be performed in cultured cells, in which the human variant allele gene is introduced and, e.g., replaces the endogenous gene in the cell. For mutant AKAP proteins binding to signalling enzymes such as PKA is also examined. Thus, depending

15

20

25

30

on the effect of the alteration a specific treatment can be administered to a subject having such a mutation. Accordingly, if the mutation results in decreased production of AKAP protein, the subject can be treated by administration of a compound which increases synthesis, such as by increasing AKAP gene expression, and wherein the compound acts at a regulatory element different from the one which is mutated. Alternatively, if the mutation results in increased AKAP protein, the subject can be treated by administration of a compound which reduces protein production, *e.g.*, by reducing AKAP gene expression or a compound which inhibits or reduces the activity of AKAP protein.

I. Diagnostic and Prognostic Assays

Typically, an individual allelic variant that associates with morbidity and/or mortality and/or an alteration in signal transduction will not be used in isolation as a prognosticator. An allelic variant typically will be one of a plurality of indicators that are used. The other indicators may be the manifestation of other risk factors for morbidity and/or mortality and other evidence of altered signal transduction.

Useful combinations of allelic variants of the AKAP10 gene can be determined. Variants can be assayed individually or assayed simultaneously using multiplexing methods as described above or any other labelling method that allows different variants to be identified. In particular, variants of the AKAP10 gene may be assayed using kits (see below) or any of a variety microarrays known to those in the art. For example, oligonucleotide probes comprising the polymorphic regions surrounding any polymorphism in the AKAP10 gene may be designed and fabricated using methods such as those described in U.S. Patent Nos. 5,492,806; 5,525,464; 5,695,940; 6,018,041; 6,025,136; WO 98/30883; WO 98/56954; WO99/09218; WO 00/58516; WO 00/58519, or references cited therein.

J. Screening assays for modulators

Modulators of AKAP10 biological activities may be identified by using any of the disclosed methods related to AKAP10 binding to PKA, AKAP10

15

20

25

30

localization in the mitochondria, binding to other signaling enzymes and phosphorylation by PKA.

In particular, once a variant protein such as AKAP10-5 is contacted with a potential modulating molecule the effect of the molecule on the binding between AKAP protein and PKA can be determined by using the assays disclosed in the section entitled "Effect of Allelic Variants". For example mitochondria can be isolated from cells exposed to the potential modulating molecule. PKA protein can then be isolated and quantitated or phosphorylation can be determined using the disclosed PKA assay. An increase in the amount of PKA protein in the mitochondria or the quantity of test peptide phosphorylated by mitochondrial isolated PKA would indicate a positive effect of the test molecule. Binding of AKAP10 protein and PKA could be directly assessed using an in vitro binding assay, or other disclosed binding assays, or by immunoassays such as immunoprecipitation.

For allelic variants that do not alter the AKAP10 protein the effect of a potential modulating molecule can be assayed by examining PKA RNA using the various methods disclosed for RNA analysis.

K. Ribozymes

A ribozyme targets the RNA genome and RNA transcripts and copies thereof. Each ribozyme molecule contains a catalytically active segment capable of cleaving the plus or minus strand of RNA, and further contains flanking sequences having a nucleotide sequence complementary to portions of the target RNA. The flanking sequences serve to anneal the ribozyme to the RNA in a site-specific manner. Absolute complementarity of the flanking sequences to the target sequence is not necessary, however, as only an amount of complementarity sufficient to form a duplex with the target RNA and to allow the catalytically active segment of the ribozyme to cleave at the target sites is necessary. Thus, only sufficient complementarity to permit the ribozyme to be hybridizable with the target RNA is required.

Enzymatic RNA molecule can be formed in a hammerhead motif, but the ribozyme may also be formed in the motif of a hairpin, hepatitis delta virus, group I intron or RNAse P RNA (in association with an RNA guide sequence).

15

20

25

30

Examples of hammerhead motifs are described by Rossi et al., AIDS Res. Hum. Retrovir. 8:183 (1992), hairpin motifs are described by Hampel et al., Biochem. 28:4929 (1989) and Hampel et al., Nucl. Acids Res. 18:299 (1990), the hepatitis delta virus motif is exemplified in Perrotta and Been, Biochem. 31:16 (1992), an RNAseP motif is described in Gueerier-Takada et al., Cell 35:849 (1983), and examples of the group I intron motif are described in Cech et al., U.S. Pat. No. 4,987,071, each of the foregoing disclosures being incorporated herein by reference.

Ribozymes may be prepared by chemical synthesis or produced by recombinant vectors according to methods established for the synthesis of RNA molecules. See, e.g., Sambrook et al., Molecular Cloning, A Laboratory Manual, 2d ed., Cold Spring Harbor Laboratory Press, Cold Spring Harbor, N.Y. (1989), incorporated herein by reference. The ribozyme sequence may be synthesized, for example, using RNA polymerases such as T7 or SP6. The ribozymes may be prepared from a corresponding DNA sequence (DNA which on transcription vields a ribozyme) operably linked to an RNA polymerase promoter such as the promoter for T7 RNA polymerase or SP6 RNA polymerase. A DNA sequence corresponding to a ribozyme may be ligated in to a DNA vector, such as a plasmid, bacteriophage or other virus. Where the transfer vector contains an RNA polymerase promoter operably linked to DNA corresponding to a ribozyme, the ribozyme may be conveniently produced upon incubation with an RNA polymerase. Ribozymes may therefore be produced in vitro by incubation of RNA polymerase with an RNA polymerase promoter operably linked to DNA corresponding to a ribozyme, in the presence of ribonucleotides. In vivo, prokaryotic or eukaryotic cells, including, but are not limited to, mammalian cells, can be transfected with an appropriate vector containing genetic material corresponding to a ribozyme, operably linked to an RNA polymerase promoter such that the ribozyme is transcribed in the host cell. Ribozymes may be directly transcribed in vivo from a transfer vector, or alternatively, may be transcribed as part of a larger RNA molecule. For example, DNA corresponding to ribozyme sequence may be ligated into the 3' end of a carrier gene, for example, after a translation stop signal. Larger RNA molecules may help to stabilize the ribozyme

molecules against nuclease digestion within the cells. On translation the carrier gene may give rise to a protein, whose presence can be directly assayed if desired, for example, by enzymatic reaction when the carrier gene encodes an enzyme.

Those of skill in the art based on the above description and the sequences disclosed herein can design ribozymes to target RNA representing the allelic variants of the AKAP10 gene. For example, the sequence of anti-AKAP10-5 hammerhead ribozyme is 5- U G C A C U G A N G A G C C U G G A C G A A A C U – 3' (SEQ ID NO: 25). The sequence UGCA is complementary to target RNA with C hybridizing to the G nucleotide at position 2073 of SEQ ID NO: 3 of the AKAP10-5 allelic variant. The simplest hammerhead ribozyme must have UG at the 5' end of the substrate binding site.

L. Kits

25

30

15 Kits can be used to indicate whether a subject is at risk of increased susceptibility to morbidity and/or predisposition for premature or increased or early mortality. The kits can also be used to determine if a subject has a genetic predisposition to a disorder related to signal transduction. This information could be used, e.g., to optimize treatment of such individuals as a particular genotype may be associated with drug response.

The kits comprise a probe or primer which is capable of hybridizing adjacent to or at a polymorphic region of AKAP10 and thereby identifying whether the AKAP10 gene contains an allelic variant which is associated with increased susceptibility to morbidity and/or predisposition for premature or increased or early mortality or a genetic predisposition to a disorder related to signal transduction and/or protein phosphorylation. The kits further comprise instructions for use in carrying out assays, interpreting results and diagnosing a subject as having increased susceptibility to morbidity and/or predisposition for premature or increased or early mortality or a genetic predisposition to a disorder related to signal transduction and/or protein phosphorylation.

Kits for amplifying a region of AKAP10 gene or other genes associated with morbidity and/or mortality and/or signal transduction comprise two primers

15

20

25

30

which flank a polymorphic region of the gene of interest. For example primers can comprise the sequences of SEQ ID NOs.:5, 6, 7, 10, 12 and 16. For other assays, primers or probes hybridize to a polymorphic region or 5' or 3' to a polymorphic region depending on which strand of the target nucleic acid is used. For example, specific probes and primers comprise sequences designated as SEQ ID NOs: 8, 15, 19 and 20. Those of skill in the art can synthesize primers and probes which hybridize adjacent to or at the polymorphic regions described herein and other SNPs in genes associated with morbidity and/or mortality and/or signal transduction

Yet other kits comprise at least one reagent necessary to perform an assay. For example, the kit can comprise an enzyme, such as a nucleic acid polymerase. Alternatively the kit can comprise a buffer or any other necessary reagent.

Yet other kits comprise microarrays of probes to detect allelic variants of the AKAP10 gene. The kits further comprise instructions for their use and interpreting the results.

The practice of methods and development of the products provided herein employ, unless otherwise indicated, conventional techniques of cell biology, cell culture, molecular biology, transgenic biology, microbiology, recombinant DNA, and immunology, which are within the skill of the art. Such techniques are explained fully in the literature. See, for example, Molecular Cloning A Laboratory Manual, 2nd Ed., ed. by Sambrook, Fritsch and Maniatis (Cold Spring Harbor Laboratory Press: 1989); DNA Cloning, Volumes I and II (D.N. Glover ed., 1985); Oligonucleotide Synthesis (M.J. Gait ed., 1984); Mullis et al. U.S. Patent No. 4,683,195; Nucleic Acid Hybridizatiion (B.D. Hames & S.J. Higgins eds. 1984); Transcription and Translation (B.D. Hames & S.J. Higgins eds. 1984); Culture of Animal Cells (R.I. Freshney, Alan R. Liss, Inc., 1987); Immobilized Cells and Enzymes (IRL Press, 1986); B. Perbal, A Practical Guide To Molecular Cloning (1984); the treatise, Methods In Enzymology (Academic Press, Inc., New York); Gene Transfer Vectors For Mammalian Cells (J.H. Miller and M.P. Calos eds., 1987, Cold Spring Harbor Laboratory); Methods In Enzymology, Vols. 154 and 155 (Wu et al. eds., Immunochemical Methods In Cell and

Molecular Biology (Mayer and Walker, eds., Academic Press, London, 1987); Handbook of Experimental Immunology, Volumes I-IV (D.M. Weir and C.C. Blackwell, eds., 1986); Manipulating the Mouse Embryo, (Cold Spring Harbor Laboratory Press, Cold Spring Harbor, N.Y., 1986).

5 The following examples are included for illustrative purposes only and are not intended to limit the scope of the invention.

EXAMPLE 1

Isolation of DNA from blood samples of a healthy donor population

Healthy samples were obtained through the blood bank of San

Bernardino, CA. Both parents of the blood donors were of Caucasian origin.

Practically a healthy subject, when human, is defined as human donor who passes blood bank criteria to donate blood for eventual use in the general population. These criteria are as follows: free of detectable viral, bacterial, mycoplasma, and parasitic infections; not anemic; and then further selected based upon a questionnaire regarding history. Thus, a healthy population represents an unbiased population of sufficient health to donate blood according to blood bank criteria, and not further selected for any disease state. Typically such individuals are not taking any medications.

Blood was obtained from a donor by venous puncture and preserved with

1 mM EDTA pH 8.0. Ten milliliters of whole blood from each donor was
centrifuged at 2000 x g. One milliliter of the buffy coat was added to 9
milliliters of 155 mM NH₄Cl, 10 mM KHCO₃, and 0.1 mM Na₂EDTA, incubated
10 minutes at room temperature and centrifuged for 10 minutes at 2000x g.
The supernatant was removed, and the white cell pellet was washed in 155 mM

NH₄Cl, 10 mM KHCO₃, and 0.1 mM Na₂EDTA and resuspended in 4.5 milliliters
of 50 mM Tris, 5 mM EDTA, and 1% SDS. Proteins were precipitated from the
cell lysate by 6 M ammonium acetate pH 7.3 and separated from the nucleic
acid by centrifugation at 3000 x g. The nucleic acid was recovered from the
supernatant by the addition of an equal volume of 100% isopropanol and
centrifugation at 2000 x g. The dried nucleic acid pellet was hydrated in 10 mM
Tris pH 7.6 and 1 mM Na₂EDTA and stored at 4°C.

EXAMPLE 2

Detection of AKAP10-1 by MassEXTEND™ Assay Detection Methods

AKAP10-1 is an allele of the AKAP10 gene with a single nucleotide polymorphism at nucleotide number 156277 (based on the sequence of a genomic clone of the AKAP10 gene, GenBank Accession No. AC005730). The single nucleotide polymorphism is a T to C transversion located in the 3'nontranslated region of the gene encoding AKAP10. PCR primers were synthesized by OPERON (Alameda, CA) using phosphoramidite chemistry. Amplification of the AKAP10 target sequence was carried out in single 50µl PCR reaction with 10 25ng of human genomic DNA obtained from samples as described in Example 1. Each reaction containing IX PCR buffer (Qiagen, Valencia, CA), 200µM dNTPs, 1U Hotstar Taq polymerase (Qiagen, Valencia, CA), 4 mM MgCl₂, and 25 pmol of the forward primer containing the universal primer sequence and the target specific sequence 5'-TCTCAATCATGTGCATTGAGG-3' (SEQ ID NO: 5) 2 pmol 15 of the reverse primer 5'-AGCGGATAACAATTTCACACAGGGATCACACAGCCATCAGCAG-3' (SEQ ID NO: 6) and 10 pmol of a biotinylated universal primer complementary to the 5' end of the PCR amplicon 5'-AGCGGATAACAATTTCACACAGG-3' (SEQ ID NO: 7). Alternatively, the biotinylated universal primer could be 5'-20 GGCGCACGCCTCCACG-3' (SEQ ID NO: 16). After an initial round of amplification of the target with the specific forward and reverse primer, the 5' biotinylated universal primer was hybridized and acted as a reverse primer thereby introducing a 3' biotin capture moiety into the molecule. The amplification protocol resulted in a 5'-biotinylated double stranded DNA amplicon, which dramatically reduces the cost of high throughput genotyping by 25 eliminating the need to 5' biotin label each forward primer used in a genotyping. Thermal cycling was performed in 0.2mL tubes or 96 well plate using an MJ Research Thermal Cycler (Waltham, MA) (calculated temperature) with the

following cycling parameters: 94°C for 5 min; 45 cycles: 94°C for 20 sec,

56°C for 30 sec, 72°C for 60 sec; 72°C for 3 min.

30

Immobilization of DNA

The 50 μ l PCR reaction was added to 25 μ l of streptavidin coated magnetic bead (Dynal) prewashed three times and resuspended in 1M NH₄CI, 0.06M NH₄OH. The PCR amplicons were allowed to bind to the beads for 15 minutes at room temperature. The beads were then collected with a magnet and the supernatant containing unbound DNA was removed. The unbound strand was released from the double stranded amplicons by incubation in 100 mM NaOH and washing of the beads three times with 10 mM Tris pH 8.0.

Genotyping

10

15

20

25

30

daltons.

Genotyping was carried out using the MassEXTEND™ assay and MALDI-TOF. The SNP identified at position 156277 of AKAP10 in the GenBank sequence is represented as a T to C transversion. The MassEXTEND™ assay detected the sequence of the complementary strand at the polymorphic position, thus the primer extension product incorporated either a T or a C. The DNA coated magnetic beads were resuspended in 26 mM Tris-HCl pH 9.5, 6.5 mM MgCl, and 50 mM each of dTTPs and 50 mM each of ddCTP, ddATP, ddGTP, 2.5U of a thermostable DNA polymerase (Amersham Pharmacia Biotech, Piscataway, NJ) and 20 pmol of a template specific oligonucleotide primer 5'-CTGGCGCCCACGTGGTCAA-3' (SEQ ID NO: 8) (Operon, Alameda, CA). Primer extension occurs with three cycles of oligonucleotide primer was hybridization and extension. The extension products were analyzed after denaturation from the template with 50 mM NH₄Cl and transfer of 150 nl each sample to a silicon chip preloaded with 150 nl of H3PA (3-hydroxy picolinic acid) (Sigma Aldrich, St. Louis, MO) matrix material. The sample material was allowed to crystallize and analyzed by MALDI-TOF (Bruker Daltonics, Billerica, MA, PerSeptive, Foster City, CA). The mass of the primer used in the MassEXTEND™ reaction was 5500.6 daltons. The allelic variant results in the addition of ddC to the primer to produce an extension product having a mass of 5773.8 daltons. The predominant allele is extended by the addition of dT and ddG to the primer to produce an extension product having a mass of 6101

The SNP that is present in AKAP10-1 is a T to C transversion at nucleotide number 156277 of the sequence of a genomic clone of the AKAP10 gene (GenBank Accession No. AC005730) (SEQ ID NO: 17). SEQ ID NO:17 represents the nucleotide sequence of human chromosome 17, which contains the genomic nucleotide sequence of the human AKAP10 gene at approximately nucleotide 83,580 to nucleotide 156,577. SEQ ID NO: 18 represents the nucleotide sequence of human chromosome 17, which contains the genomic nucleotide sequence of the human AKAP10-1 allele.

The frequency of the AKAP10-1 allelic variant was measured in a population of age selected healthy individuals. Five hundred fifty-two (552) individuals between the ages of 18-39 years (276 females, 276 males) and 552 individuals between the ages of 60-79 (184 females between the ages of 60-69, 368 males between the age of 60-79) were tested for the presence of the allelic variant localized in the non-translated 3' region of AKAP 10. Differences in the 15 frequency of this variant with increasing age groups were observed among healthy individuals. Statistical analysis showed that the significance level for differences in the allelic frequency for alleles between the "younger" and the "older" populations was p = 0.0009 and for genotypes was p = 0.003. Differences between age groups are significant. For the total population allele significance is p = 0.0009, and genotype significance is p = 0.003. 20 The young and old populations were in Hardy-Weinberg equilibrium. A preferential change of one particular genotype was not seen.

The polymorphism is localized in the non-translated 3'-region of the gene encoding the human protein kinase A anchoring protein (AKAP10). The gene is located on chromosome 17. Its structure includes 15 exons and 14 intervening sequences (introns). The encoded protein is responsible for the sub-cellular localization of the cAMP-dependent protein kinase and, therefore, plays a key role in the G-protein mediated receptor-signaling pathway (Huang et al. PNAS (1007) 94:11184-11189). Since its localization is outside the coding region, this polymorphism is most likely in linkage disequilibrium (LD) with other non-synonymous polymorphisms that could cause amino acid substitutions and subsequently alter the function of the protein.

30

-90

EXAMPLE 3

Discovery of AKAP10-5 Allele

Genomic DNA was isolated from blood (see Example 1) of seventeen (17) individuals with a genotype CC at the AKAP10-1 gene locus and a single heterozygous individual (CT) (as described in Example 2). A target sequence in the AKAP10-1 gene which encodes the C-terminal PKA binding domain was amplified using the polymerase chain reaction. PCR primers were synthesized by OPERON (Alameda, CA) using phosphoramidite chemistry. Amplification of the AKAP10-1 target sequence was carried out in individual 50μl PCR reaction with 10 25ng of human genomic DNA templates. Each reaction containing I X PCR buffer (Qiagen, Valencia, CA), 200µM dNTPs, IU Hotstar Taq polymerase (Qiagen, Valencia, CA), 4 mM MgCl2, and 25 pmols of the forward primer containing the universal primer sequence and the target specific sequence 5'-TCC CAA AGT GCT GGA ATT AC-3' (SEQ ID NO: 9), 2pmol of the reverse 15 primer 5'-GTC CAA TAT ATG CAA ACA GTT G-3'(SEQ ID NO:10). Thermal cycling was performed in 0.2 mL tubes or 96 well plate using an MJ Research Thermal Cycler (MJ Research, Waltham, MA) (calculated temperature) with the following cycling parameters: 94°C for 5 min; 45 cycles; 94°C for 20 sec, 56°C for 30 sec, 72°C for 60 sec; 72°C 3min. After amplification the 20 amplicons were purified by chromatography (Mo Bio Laboratories (Solana Beach, CA).

The sequence of the 18 amplicons, representing the target region, was determined using a standard Sanger cycle sequencing method with 25 nmol of the PCR amplicon, 3.2 μ M DNA sequencing primer 5'-CCC ACA GCA GTT AAT CCT TC-3' (SEQ ID NO:11) and chain terminating dRhodamine labeled 2', 3' dideoxynucleotides (PE Biosystems, Foster City, CA) using the following cycling parameters: 96°C for 15 sec, 25 cycles: 55°C for 15 sec, 60°C for 4 min. The sequencing products were precipitated by 0.3 M NaOAc and ethanol, the precipitate was centrifuged and dried. The pellets were resuspended in deionized formamide and separated on a on a 5% polyacrylamide gel. The sequence was determined using the "Sequencher" software (Gene Codes, Ann Arbor, MI).

20

25

30

The sequence of all 17 of the amplicons which are homozygous for the AKAP10-1 SNP revealed a polymorphism at nucleotide position 152171 (numbering for GenBank Accession No. AC005730 for AKAP10 genomic clone) with A replaced by G. This SNP can also be designated as located at nucleotide 2073 of a cDNA clone of the wildtype AKAP10 (SEQ ID NO:1) (GenBank Accession No. AF037439). This single nucleotide polymorphism was designated as AKAP10-5 (SEQ ID NO:3) and results in a substitution of a valine for an isoleucine residue at amino acid position 646 (SEQ ID NO:4).

EXAMPLE 4

10 PCR Amplification and MassEXTEND™ assay detection of AKAP10-5 in a healthy donor population

A healthy population stratified by age is a very efficient and a universal screening tool for morbidity associated genes by allowing for the detection of changes of allelic frequencies in the young compared to the old population. Individual samples of this healthy population base can be pooled to further increase the throughput.

Healthy samples were obtained through the blood bank of San Bernardino, CA. Both parents of the blood donors were of Caucasian origin. Practically a healthy subject, when human, is defined as human donor who passes blood bank criteria to donate blood for eventual use in the general population. These criteria are as follows: free of detectable viral, bacterial, mycoplasma, and parasitic infections; not anemic; and then further selected based upon a questionnaire regarding history. Thus, a healthy population represents an unbiased population of sufficient health to donate blood according to blood bank criteria, and not further selected for any disease state. Typically such individuals are not taking any medications.

PCR primers were synthesized by OPERON (Alameda, CA) using phosphoramidite chemistry. Amplification of the AKAP10 target sequence was carried out in single 50μ I PCR reaction with 100ng- 1ug of pooled human genomic DNA in a 50μ I PCR reaction. Individual DNA concentrations within the pooled samples were present in equal concentration with the final concentration ranging from 1-25ng. Each reaction contained 1X PCR buffer (Qiagen, Valencia,

20

25

30

CA), 200µM dNTPs, 1U Hotstar Taq polymerase (Qiagen, Valencia, CA), 4 mM MgCl₂, and 25 pmols of the forward primer containing the universal primer sequence and the target specific sequence

5'-AGCGGATAACAATTTCACACAGGGAGCTAGCTTGGAAGATTGC-3' (SEQ ID NO:12), 2pmol of the reverse primer 5'-GTCCAATATATGCAAACAGTTG-3' (SEQ ID NO: 10) and 10 pmol of a biotinylated universal primer complementary to the 5' end of the PCR amplicon BIO:5'-AGCGGATAACAATTTCACACAGG-3' (SEQ ID NO: 7). After an initial round of amplification with the target with the specific forward and reverse primer, the 5' biotinylated universal primer

hybridized and acted as a forward primer thereby introducing a 5' biotin capture moiety into the molecule. The amplification protocol resulted in a 5'-biotinylated double stranded DNA amplicon and dramatically reduces the cost of high throughput genotyping by eliminating the need to 5' biotin label every forward primer used in a genotyping.

Themal cycling was performed in 0.2 mL tubes or 96 well plate using an MJ Research Thermal Cycler (Waltham, MA) (calculated temperature) with the following cycling parameters: 94°C for 5 min; 45 cycles: 94°C for 20 sec, 56°C for 30 sec; 72°C for 60 sec; 72°C for 3 min.

Immobilization of DNA

The 50 μ l PCR reaction was added to 25 μ l of streptavidin coated magnetic beads (Dynal, Oslo, Norway) (Lake Success, NY), which were prewashed three times and resuspended in 1 M NH₄Cl, 0.06 M NH₄OH. The 5' end of one strand of the double stranded PCR amplicons were allowed to bind to the beads for 15 minutes at room temperature. The beads were then collected with a magnet and the supernatant containing unbound DNA was removed. The hybridized but unbound strand was released from the double stranded amplicons by incubation in 100 mM NaOH and washing of the beads three times with 10 mM Tris pH 8.0.

Genotyping

The identity of the nucleotide present at the polymorphic site of AKAP 10-5 was determined by using the MassEXTEND™ assay and MALDI-TOF (see, U.S. Patent No. 6,043,031). The MassEXTEND™ assay is a primer extension

20

25

30

assay that utilizes a primer that hybridizes adjacent to the polymorphic region and which is extended in the presence of one or more ddNTPs. Extension is stopped by the incorporation of a dideoxy nucleotide. At a polymorphic site the different alleles produce different length extension products, which are distinguishable by mass spectrometry.

The MassEXTEND™ assay detected the sequence of the sense strand and resulted in the incorporation of either T or C into the extension product. The DNA coated magnetic beads were suspended in 26 mM Tris-HCl pH 9.5; 6.5 mM, MgCl₂ and 50 mM each of dTTPs and 50 mM each of ddCTP, ddATP, ddGTP, 2.5U of a thermostable DNA polymerase (Amersham Pharmacia Biotech, Piscataway NJ) and 20 pmol of a template specific oligonucleotide primer 5'-ACTGAGCCTGCATAA-3' (SEQ ID NO:15) (Operon) (Alameda, CA). Primer extension occurs with three cycles of oligonucleotide primer hybridization and extension. The extension products were analyzed after denaturation from the template with 50 mM NH₄Cl and transfer of 150 nl each sample to a silicon chip preloaded with 150 nl of H3PA (3-hydroxy picolinic acid) (Sigma Aldrich, St. Louis, MO) matrix material. The sample material was allowed to crystallize and was analyzed by MALDI-TOF (Bruker Daltonics, Billerica, MA, PerSeptive, Foster City, CA). The primer had a mass of 5483.6 daltons. The allelic variant resulted in the addition of a ddC to the primer to produce an extension product having a mass of 5756.8 daltons. The predominant allele resulted in the addition a T and ddG to the primer giving an extension product with a mass of 6101 daltons.

The frequency of the SNP was measured in a population of age selected healthy individuals. 713 individuals under 40 years of age (360 females, 353 males) and 703 individuals over 60 years of age (322 females, 381 males) were tested for the presence of the SNP, AKAP10-5. Results are presented below in Table 3.

TABLE 4 AKAP10-5 (2073V) frequency comparison in 2 age groups											
			<40	>60	delta G allele						
Female	Alleles	*G	38.6	34.6	4.0						

				, -	·	
			*A	61.4	65.4	
		Genotypes	G	13.9	11.8	2.1
			GA	49.4	45.7	
	,		A	36.7	42.5	
5						
	Male	Alleles	*G	41.4	37.0	4.4
٠,			*A	58.6	63.0	
		Genotypes	G	18.4	10.8	7.7
			GA	45.9	52.5	
10			A	35.7	36.7	
	Total	Alleles	*G	40.0	35.9	4.1
			*A	60.0	64.1	
		Genotypes	G	16.1	11.2	4.9
15			GA	47.7	49.4	
			А	36.2	39.4	

The difference in the allelic and the genotype frequencies between the two age groups, for the total population, are significant, p = 0.02.

20

25

30

EXAMPLE 5

Discovery of AKAP10-6 and AKAP10-7

Genomic DNA isolation, amplification of the target regions and sequencing of amplicons was carried out as in Example 3. Using the sequence of the cDNA for AKAP10, chromosome 17 was BLAST searched to identify the number of exons. Sanger sequencing of the regions around and containing the exons was performed and resulted in the discovery of AKAP10-6 and AKAP10-7 polymorphic regions. For AKAP10-6 the forward sequencing primer was CCCCAGGGAGTTA GTTTTGC (SEQ ID NO: 21) and the reverse sequencing primer was GATCCACGGTCCTCAAAGAA (SEQ ID NO: 22). For AKAP10-7 the forward sequencing primer was CACTGCACCCAGCCTTATG (SEQ ID NO: 23)

10

15

20

25

and the reverse sequencing primer was CTGGGATGTGAAGGAAAGGA (SEQ ID NO: 24).

EXAMPLE 6

MassEXTEND™ assay detection of AKAP10-6 and AKAP10-7

Samples are obtained and amplified as in Example 4.

The identity of the nucleotide present at the polymorphic site of AKAP 10-6 is determined by using the MassEXTEND™ assay and MALDI-TOF (see, U.S. Patent No. 6,043,031). The MassEXTEND™ assay detected the sequence of the sense strand and resulted in the incorporation of either G or C into the extension product. Reactions are carried out as in Example 4. The template specific oligonucleotide primer is 5′-GCCGCCATATTATCAACAA-3′ (SEQ ID NO: 19) (Operon) (Alameda, CA). The primer has a mass of 5740.8 daltons. The allelic variant results in the addition of a ddC to the primer to produce an extension product having a mass of 6014.0 daltons. The predominant allele results in the addition of a G and ddC to the primer giving an extension product with a mass of 6343.2 daltons.

The identity of the nucleotide present at the polymorphic site of AKAP 10-7 is determined by using the MassEXTEND™ assay and MALDI-TOF (see, U.S. Patent No. 6,043,031). The MassEXTEND™ assay detects the sequence of the complementary strand and resulted in the incorporation of either G or A into the extension product. Reactions are carried out as in Example 4. The template specific oligonucleotide primer is 5′-CTCTGCGTCTCAGGTATT-3′ (SEQ ID NO: 20). (Operon, Alameda, CA). The primer has a mass of 5456.6 daltons. The allelic variant results in the addition of a ddA to the primer to produce an extension product having a mass of 5753.6 daltons. The predominant allele results in the addition of a G and ddA to the primer giving an extension product with a mass of 6083.0 daltons.

Since modifications will be apparent to those of skill in this art, it is intended that this invention be limited only by the scope of the appended claims.

10

WHAT IS CLAIMED:

- 1. An isolated nucleic acid molecule, comprising a sequence of nucleotides that encodes a polypeptide set forth in SEQ ID No. 2, except that the Ile residue at position 646 of SEQ ID NO: 2 is replaced with Val, Leu or Phe.
- 2. An isolated nucleic acid molecule of claim 1, wherein the residue at position 646 of SEQ ID NO: 2 is Val.
 - 3. An isolated nucleic acid molecule of claim 1, comprising the sequence of nucletides set forth as position 138 to position 2126 of SEQ ID NO: 1, except that the nucleotide at position 2073 of SEQ ID NO: 1 is replaced with a nucleotide selected from the group consisting of G, T and C.
 - 4. The nucleic acid molecule of claim 3, wherein the nucleotide at position 2073 of SEQ ID NO: 1 is G.
 - 5. The isolated nucleic acid molecule of claim 2, comprising nucleotides from position 138 to position 2126 of SEQ ID NO: 3.
- 6. An isolated nucleic acid molecule, comprising at least 14 or 16 contiguous nucleotides of SEQ. ID. NO: 3; wherein the contiguous nucleotides include a sequence of 5 contiguous nucleotides as set forth from position 2069 to position 2077 of SEQ. ID. NO: 3.
- 7. The isolated nucleic acid molecule of claim 6, comprising at least30 contiguous nucleotides of SEQ. ID. NO: 3.
 - 8. The isolated nucleic acid molecule of claim 6, comprising at least 50 contiguous nucleotides of SEQ. ID. NO: 3.
- 9. A polypeptide encoded by the nucleic acid molecule of claim 1, comprising at least 5 or 6 amino acid residues including the replaced residue at position 646 of SEQ ID NO: 2.
 - 10. The polypeptide of claim 9, wherein the residue at position 646 of SEQ ID NO: 2 is Val.
- 11. A primer, probe or antisense nucleic acid molecule, comprising a sequence of nucleotides that specifically hybridizes adjacent to or at a
 30 polymorphic region spanning a position corresponding to position 2073 of SEQ ID No. 1 or 3 of an AKAP10 allele or the complement thereof.

- 12. The primer, probe or antisense nucleic acid molecule of claim 11, wherein the hybridization refers to hybridization under moderate or high conditions.
- 13. A primer of claim 11, that specifically hybridizes at a position immediately adjacent to a position corresponding to position 2073 of SEQ ID NO: 1 or 3 of an AKAP10 allele.
 - 14. A primer of claim 11, that is extended by a nucleotide that specifically base pairs with the nucleotide at a position corresponding to position 2073 of SEQ ID NO: 3 of an AKAP10 allele.
- 15. The primer, probe or antisense nucleic acid molecule of claim 11, that is single-stranded and contains at least 14 or 16 contiguous nucleotides of the AKAP10 allele or complement thereof, wherein the sequence of nucleotides includes at least 5 contiguous nucleotides from position 2069 to position 2077 of SEQ. ID. NO: 3.
- 16. The primer, probe or antisense nucleic acid molecule of claim 15, wherein nucleotide at position 2073 of SEQ ID NO: 1 is replaced with a nucleotide selected from the group consisting of G, C or T.
 - 17. The isolated nucleic acid molecule of claim 11, comprising at least 20 contiguous nucleotides of SEQ. ID. NO: 3, or the complement thereof.
- 20 18. The isolated nucleic acid of claim 11, comprising at least 30 contiguous nucleotides of SEQ. ID. NO: 3, or the complement thereof.
 - 19. A nucleic acid vector, comprising the nucleic acid molecule of claim 1.
 - 20. A cell containing the nucleic acid vector of claim 19.
- 25 21. A method for detecting the presence or absence of an allelic variant of a human AKAP10 gene, comprising determining the identity of the nucleotide at a position corresponding to position 2073 of the coding sequence of a human AKAP10 gene of claim 1 or the complement thereof, wherein a variant has a nucleotide other than A at a position corresponding to position 2073.

- 22. The method of claim 21, wherein determining the identity comprises:
- (a) hybridizing a target nucleic acid comprising a human AKAP10-encoding nucleic acid or fragment thereof or a complement of a human AKAP10-encoding nucleic acid or fragment thereof with a nucleic acid primer that hybridizes adjacent to a position corresponding to position 2073 of the coding sequence of the human AKAP10 gene or complement thereof;
- (b) extending the nucleic acid primer using the target nucleic acid as a template; and
- (c) determining the mass of the extended primer to identify the nucleotide present at a position corresponding to position 2073 or the complement thereof, thereby determining the presence or absence of an allelic variant.
- 23. The method of claim 22, wherein the mass is determined by mass15 spectrometry.
 - 24. The method of claim 22, wherein the primer is extended in the presence of at least one dideoxynucleotide,
 - 25. The method of claim 24, wherein the at least one dideoxynucleotide is ddT.
- 26. The method of claim 24, wherein the primer is extended in the presence at least two dideoxynucleotides and the at least two dideoxynucleotides are ddT and ddC.
 - 27. The method of claim 26, wherein the mass is determined by mass spectrometry.
- 25 28. The method of claim 24, wherein the at least one dideoxynucleotide is ddA.
 - 29. The method of claim 24, wherein the primer is extended in the presence at least two dideoxynucleotides and the at least two dideoxynucleotides are ddA and ddG.
- 30. The method of claim 29, wherein the mass is determined by mass spectrometry.

10

30

- 31. The method of claim 22, wherein hybridization is effected under conditions of high stringency.
- 32. The method of claim 21, wherein determining the identity comprises:
- (a) hybridizing a target nucleic acid comprising a human AKAP10encoding nucleic acid, complement thereof or fragment thereof with a singlestranded nucleic acid probe at a position corresponding to position 2073 of the coding sequence of the human AKAP10 gene or complement thereof; and
- (b) detecting hybridized probe to identify the nucleotide present at a position corresponding to position 2073 or the complement thereof, thereby determining the presence or absence of an allelic variant.
 - 33. The method of claim 32, wherein hybridization is effected under conditions of high stringency.
- 34. The method of claim 32, wherein the nucleotide of the probe that15 hybridizes with the nucleotide at a position corresponding to position 2073 is complementary to a G, T, or C nucleotide.
 - 35. The method of claim 32, wherein the nucleotide of the probe that hybridizes with the nucleotide at the complement of a position corresponding to position 2073 is complementary to a G, A, or C nucleotide.
- 20 36. The method of claim 34, wherein the nucleotide detected at the position corresponding to position 2073 is a G.
 - 37. The method of claim 35, wherein the nucleotide detected at the complement of the position corresponding to position 2073 is a C.
- 38. A method for indicating susceptibility to morbidity, increased or25 early mortality, or morbidity and increased or early mortality of a subject,comprising:

detecting the presence or absence of at least one allelic variant of a polymorphic region of an AKAP10 gene that is associated with susceptibility to morbidity, increased or early mortality, or morbidity and increased or early mortality, wherein:

the predominant allele comprises an "A" at a position corresponding to position 2073 of SEQ ID NO: 1; and

the presence of the allelic variant is indicative of increased susceptibility to morbidity, increased or early mortality, or morbidity and increased or early mortality compared to the susceptibility of a subject who does not comprise the allelic variant.

- 39. The method of claim 38, wherein a polymorphic region of the AKAP10 gene comprises a nucleotide other than an A at a position corresponding to position 2073 of the coding sequence of the AKAP10 gene or other than a T of the complement of the coding sequence of the AKAP10 gene.
- 40. The method of claim 38, wherein the detecting step is effected by a method selected from the group consisting of allele specific hybridization, primer specific extension, oligonucleotide ligation assay, restriction enzyme site analysis and single-stranded conformation polymorphism analysis.
 - 41. The method of claim 38, wherein the detecting step comprises mass spectrometry.
- 15 42. The method of claim 38, wherein detection is effected by detecting a signal moiety selected from the group consisting of radioisotopes, enzymes, antigens, antibodies, spectrophotometric reagents, chemiluminescent reagents, fluorescent reagents and other light producing reagents.
 - 43. The method of claim 39, further comprising:
- detecting an allelic variant at another polymorphic region of an AKAP10 gene selected from the group consisting of a position corresponding to position 83587 of SEQ ID NO: 13, a position corresponding to position 129,600 of SEQ ID NO: 14 and a position corresponding to position 156,277 of SEQ ID NO: 18.
- 44. A cell, comprising heterologous nucleic acid that encodes a human AKAP10 variant protein or portion that exhibits a biological activity of the full length variant protein, wherein the AKAP10 variant protein or portion thereof is encoded by the nucleic acid molecule of claim 1 and comprises valine at a position corresponding to the position of amino acid residue 646 of SEQ ID NO: 2.
- 30 45. The cell of claim 44, wherein heterologous nucleic acid encodes the sequence of amino acids set forth in SEQ. ID. NO: 4.

- 46. The cell of claim 44, wherein the nucleic acid comprises the sequence of nucleotides set forth from position 138 to position 2126 of SEQ. ID. NO: 3.
- 47. A kit for indicating whether a human subject has an increased susceptibility to morbidity or a predisposition for premature or increased or early mortality, comprising:
 - a first primer or probe of claim 11; and
- a second primer or probe that specifically hybridizes adjacent to or at a polymorphic region spanning a position corresponding to positions selected from the group consisting of position 83587 of SEQ ID NO 13 or 17, position 129600 of SEQ ID NO 14 or 17, and position 156,277 of SEQ ID NO 18 or 17 of an AKAP10 allele or the complement thereof.
 - 48. The kit of claim 47, further comprising instructions for use.
- 49. The kit of claim 47, further comprising at least one15 dideoxynucleotide.
 - 50. The kit of claim 49, wherein the dideoxynucleotide is selected from the group consisting of ddA, ddC and ddG.
 - 51. A method of producing a protein by growing the cell of claim 20 under conditions whereby the protein is expressed; and
- isolating the protein.
 - 52. The method of claim 51, wherein the cell is a mammalian cell, yeast cell, insect cell or bacterial cell.
 - 53. The method of claim 51, wherein the cell is a human cell.
 - 54. A protein produced by the method of claim 52.
- 25 55. A transgenic animal, comprising heterologous nucleic acid encoding a human AKAP10 variant protein of claim 1 or portion thereof which retains a biological activity exhibited by the full length variant protein, wherein the AKAP10 protein or portion thereof comprises valine at a position corresponding to amino acid residue position 646 of SEQ ID NO: 2, wherein:
- 30 the transgenic nucleotide acid is expressed; and,

as a result of the expression, the transgenic animal has an alteration in cellular signal transduction.

30

- 56. The transgenic animal of claim 55, which is a mouse.
- 57. A method for identifying a molecule that modulates the biological activity of an AKAP10 protein, comprising:
- (a) combining the candidate molecule with a cell comprising a nucleic acid molecule of claim 1 encoding an AKAP10 protein that comprises an amino acid at a position corresponding to the position of residue 646 of SEQ ID NO: 2 which is not lie or portion thereof that retains a biological activity exhibited by a full length variant protein, operably linked to a promoter such that the nucleotide sequence is expressed as an AKAP protein or portion thereof in the cell; and
- 10 (b) determining the affect of the molecule upon a biological activity of the AKAP10 protein or portion thereof.
 - 58. The method of claim 57, wherein the biological activity of the AKAP protein or portion thereof is determined by examining signal transduction in the cell.
- 15 59. The method of claim 57, wherein the biological activity is the binding of AKAP10 protein or portion thereof to protein kinase A.
 - 60. The method of claim 57, wherein the biological activity of the AKAP protein or portion thereof is determined by examining protein phosphorylation in the cell.
- 20 61. A method for indicating an alteration in signal transduction in a subject, comprising:

detecting the presence or absence of an allelic variant of an AKAP10 gene having a nucleotide other than A at a position corresponding to position 2073 of SEQ ID NO: 1, wherein the presence of a nucleotide other than A is indicative of an alteration in signal transduction.

- 62. The method of claim 61, wherein the allelic variant has a G at a position corresponding to position 2073 of SEQ ID NO: 1.
- 63. The method of claim 61, further comprising detecting the presence or absence of an allelic variant at another polymorphic position of the AKAP10 gene selected from the group consisting of a position corresponding to position 83587 of SEQ ID NO: 13, position 129,600 of SEQ ID NO: 14 and position 156,277 of SEQ ID NO: 18.

10

20

- 64. The method of claim 61, wherein the alteration in signal transduction is related to a disorder selected from the group consisting of cardiovascular disorders, cardiac disorders, proliferative disorders, neurological disorders, neurological disorders, neurological retinopathies.
- 65. The method of claim 64, wherein the disorders are selected from the group consisting of Alzheimer's disease, altered left ventricular function, cardiomyopathies, bipolar disorder and retinitis pigmentosa.
- 66. The method of claim 61, wherein the detecting step is effected by a method selected from the group consisting of allele specific hybridization, primer specific extension, oligonucleotide ligation assay, restriction enzyme site analysis and single-stranded conformation polymorphism analysis.
- 67. The method of claim 61, wherein the detecting step comprises mass spectrometry.
- 15 68. The method of claim 61, wherein the detecting step is effected a signal moiety selected from the group consisting of: radioisotopes, enzymes, antigens, antibodies, spectrophotometric reagents, chemiluminescent reagents, fluorescent reagents and other light producing reagents.
 - 69. A solid support comprising a nucleic acid molecule comprising a polymorphic region of an AKAP10 gene, wherein the polymorphic region comprises a nucleotide at a position corresponding to position 2073 of SEQ ID NO: 1 that is other than an A or other than T on the complementary strand.
 - 70. The solid support of claim 69 which is a microarray.
- 71. The microarray of claim 70, further comprising a nucleic acid
 25 molecule that comprises the sequence of a polymorphic region of an AKAP10 gene corresponding to a position selected from the group consisting of position 83587 of SEQ ID NO: 13, position 129,600 of SEQ ID NO: 14 and position 156,277 of SEQ ID NO: 18.
- 72. An anti-AKAP10 ribozyme comprising a sequence complementary to a polymorphic region of an AKAP10 gene.
 - 73. The ribozyme of claim 72, in which the polymorphic regions are selected from the group consisting of a position corresponding to position 2037

-104

of SEQ ID NO: 3, position 83587 of SEQ ID NO: 13, position 129,600 of SEQ ID NO: 14 and position 156,277 of SEQ ID NO: 18.

- 74. The ribozyme of claim 72, comprising SEQ ID NO: 25.
- 75. A primer consisting essentially of sequence of nucleotides selected from the group consisting of SEQ ID NO: 8, SEQ ID NO: 15, SEQ ID NO: 19 and SEQ ID NO: 20.

-1 of 185-

SEQUENCE LISTING

<110>	Braun Sequ	, A. enom,	Inc												
	POLYMORPHIC KINASE ANCHOR PROTEINS NUCLEIC ACIDS ENCODING THE SAME														
<130>	24736-2035														
	09/834,700 2000-07-10														
	- 60/217,251 - 2000-07-10														
	> 60/240,335 > 2000-10-13														
<160>	> 25														
<170>	0> FastSEQ for Windows Version 4.0														
<211> <212>	<210> 1 <211> 2363 <212> DNA <213> Homo Sapiens														
<220> <221> CDS <222> (138)(2126) <223> Wild Type AKAP-10															
	GenBar 1997-1		0374	39											
ccacto	1 ttgtt g cccgg a gccgg t	agaag	gggto ga at Mo	c cc tg a	tttt gg g	ga g	g cta gcc <u>c</u>	igtgo igg o	agc cc t	ggcd	ccto	tg g	gacco	eggaag ecc	60 120 170
	gc acc rg Thr														218
	aa gtg ys Val 30														266
Ile Ly	aa gct ys Ala 45	tca a Ser I	ata t Ile S	tcc Ser	gta Val 50	cat His	tcc Ser	cca Pro	caa Gln	aaa Lys 55	agc Ser	act Thr	aaa Lys	aat Asn	314
cat go His Al 60	cc ttg la Leu	ctg c	gag g Glu A	gct Ala 65	gca Ala	gga Gly	cca Pro	agt Ser	cat His 70	gtt Val	gca Ala	atc Ile	aat Asn	gcc Ala 75	362
att to Ile Se	et gcc er Ala	aac a Asn M	atg g Met A	gac Asp	tcc Ser	ttt Phe	tca Ser	agt Ser	agc Ser	agg Arg	aca Thr	gcc Ala	aca Thr	ctt Leu	410

-2 of 185-

				80					85					90			
					cac His											458	8
					tac Tyr											506	6
					gtc Val											554	4
					ctt Leu 145											602	2
					ttt Phe											650	3
					atg Met											698	3
					gaa Glu										ctt Leu	746	5
					gat Asp		ĞĪy									794	1
tca Ser 220	gaa Glu	gga Gly	att Ile	gac Asp	ctg Leu 225	aat Asn	aat Asn	aga Arg	act Thr	aac Asn 230	agc Ser	act Thr	cag Gln	aat Asn	cac His 235	842	2
					gaa Glu											890)
					act Thr											938	3
					gta Val											986	5
aaa Lys	gaa Glu 285	ttg Leu	tca Ser	gga Gly	aaa Lys	cta Leu 290	atg Met	aaa Lys	agt Ser	ata Ile	gaa Glu 295	caa Gln	gat Asp	gca Ala	gtg Val	1034	Ŀ
					tat Tyr 305											1082	?
att Ile	aca Thr	gaa Glu	gca Ala	atg Met 320	aga Arg	aat Asn	gac Asp	atc Ile	ata Ile 325	gca Ala	agg Arg	att Ile	tgt Cys	gga Gly 330	gaa Glu	1130)
gat	gga	cag	gtg	gat	ccc	aac	tgt	ttc	gtt	ttg	gca	cag	tcc	ata	gtc	1178	š

-3 of 185-

Asp	Gly	Gln	Val 335	Asp	Pro	Asn	Cys	Phe 340	Val	Leu	Ala	Gln	Ser 345		Val	
ttt Phe	agt Ser	gca Ala 350	Met	gag Glu	caa Gln	gag Glu	cac His 355	ttt Phe	agt Ser	gag Glu	ttt Phe	ctg Leu 360	cga Arg	agt Ser	cac His	1226
cat His	ttc Phe 365	Cys	aaa Lys	tac Tyr	cag Gln	att Ile 370	gaa Glu	gtg Val	ctg Leu	acc Thr	agt Ser 375	gga Gly	act Thr	gtt Val	tac Tyr	1274
ctg Leu 380	Ala	gac Asp	att Ile	ctc Leu	ttc Phe 385	tgt Cys	gag Glu	tca Ser	gcc Ala	ctc Leu 390	ttt Phe	tat Tyr	ttc Phe	tct Ser	gag Glu 395	1322
tac Tyr	atg Met	gaa Glu	aaa Lys	gag Glu 400	gat Asp	gca Ala	gtg Val	aat Asn	atc Ile 405	tta Leu	caa Gln	ttc Phe	tgg T r p	ttg Leu 410	gca Ala	1370
gca Ala	gat Asp	aac Asn	ttc Phe 415	cag Gln	tct Ser	cag Gln	ctt Leu	gct Ala 420	gcc Ala	aaa Lys	aag Lys	Gly aaa	caa Gln 425	tat Tyr	gat Asp	1418
gga Gly	cag Gln	gag Glu 430	gca Ala	cag Gln	aat Asn	gat Asp	gcc Ala 435	atg Met	att Ile	tta Leu	tat Tyr	gac Asp 440	aag Lys	tac Tyr	ttc Phe	1466
tcc Ser	ctc Leu 445	caa Gln	gcc Ala	aca Thr	cat His	cct Pro 450	ctt Leu	gga Gly	ttt Phe	gat Asp	gat Asp 455	gtt Val	gta Val	cga Arg	tta Leu	1514
gaa Glu 460	att Ile	gaa Glu	tcc Ser	aat Asn	atc Ile 465	tgc Cys	agg Arg	gaa Glu	ggt Gly	999 Gly 470	cca Pro	ctc Leu	ccc Pro	aac Asn	tgt Cys 475	1562
ttc Phe	aca Thr	act Thr	cca Pro	tta Leu 480	cgt Arg	cag Gln	gcc Ala	tgg Trp	aca Thr 485	acc Thr	atg Met	gag Glu	aag Lys	gtc Val 490	ttt Phe	1610
ttg Leu	cct Pro	ggc Gly	ttt Phe 495	ctg Leu	tcc Ser	agc Ser	aat Asn	ctt Leu 500	tat Tyr	tat Tyr	aaa Lys	tat Tyr	ttg Leu 505	aat Asn	gat Asp	·1658
ctc Leu	atc Ile	cat His 510	tcg Ser	gtt Val	cga Arg	gga Gly	gat Asp 515	gaa Glu	ttt Phe	ctg Leu	ggc Gly	999 Gly 520	aac Asn	gtg Val	tcg Ser	1706
ccg Pro	act Thr 525	gct Ala	cct Pro	gly ggc	tct Ser	gtt Val 530	Gly	cct Pro	cct Pro	gat Asp	gag Glu 535	tct Ser	cac His	cca Pro	gly aaa	1754
agt Ser 540	tct Ser	gac Asp	agc Ser	tct Ser	gcg Ala 545	tct Ser	cag Gln	tcc Ser	agt Ser	gtg Val 550	aaa Lys	aaa Lys	gcc Ala	agt Ser	att Ile 555	1802
aaa Lys	ata Ile	ctg Leu	Lys	aat Asn 560	ttt Phe	gat Asp	gaa Glu	Ala	ata Ile 565	att Ile	gtg Val	gat Asp	gcg Ala	gca Ala 570	agt Ser	1850
ctg Leu	gat Asp	Pro	gaa Glu 575	tct Ser	tta Leu	tat Tyr	${\tt Gln}$	cgg Arg 580	aca Thr	tat Tyr	gcc Ala	Gly	aag Lys 585	atg Met	aca Thr	1898

-4 of 185-

ttt gga aga gtg agt gac ttg ggg caa ttc atc cgg gaa tct gag cct Phe Gly Arg Val Ser Asp Leu Gly Gln Phe Ile Arg Glu Ser Glu Pro 590 595 600	1946
gaa cct gat gta agg aaa tca aaa gga tcc atg ttc tca caa gct atg Glu Pro Asp Val Arg Lys Ser Lys Gly Ser Met Phe Ser Gln Ala Met 605 610	1994
aag aaa tgg gtg caa gga aat act gat gag gcc cag gaa gag cta gct Lys Lys Trp Val Gln Gly Asn Thr Asp Glu Ala Gln Glu Glu Leu Ala 620 635	2042
tgg aag att gct aaa atg ata gtc agt gac att atg cag cag gct cag Trp Lys Ile Ala Lys Met Ile Val Ser Asp Ile Met Gln Gln Ala Gln 640 645 650	2090
tat gat caa ccg tta gag aaa tct aca aag tta tga ctcaaaactt Tyr Asp Gln Pro Leu Glu Lys Ser Thr Lys Leu * 655 660	2136
gagataaagg aaatctgctt gtgaaaaata agagaacttt tttcccttgg ttggattctt caacacagcc aatgaaaaca gcactatatt tctgatctgt cactgttgtt tccagggaga gaatggggag acaatcctag gacttccacc ctaatgcagt tacctgtagg gcataattgg atggcacatg atgtttcaca cagtgaggag tctttaaagg ttaccaa	2196 2256 2316 2363
<210> 2 <211> 662 <212> PRT <213> Homo Sapiens	
<400> 2	
Met Arg Gly Ala Gly Pro Ser Pro Arg Gln Ser Pro Arg Thr Leu Arg 1 10 15 15 10 15	
Pro Asp Pro Gly Pro Ala Met Ser Phe Phe Arg Arg Lys Val Lys Gly 20 25 30	
Lys Glu Gln Glu Lys Thr Ser Asp Val Lys Ser Ile Lys Ala Ser Ile 35 40 45	
Ser Val His Ser Pro Gln Lys Ser Thr Lys Asn His Ala Leu Leu Glu 50 60	
Ala Ala Gly Pro Ser His Val Ala Ile Asn Ala Ile Ser Ala Asn Met 65 70 75 80	
Asp Ser Phe Ser Ser Ser Arg Thr Ala Thr Leu Lys Lys Gln Pro Ser	
·	
100 105 110 Tyr Gln Thr Gln Glu Thr Lys Ser Ser Leu Ser Lys Thr Leu Glu Gln	
115 120 125 Val Leu His Asp Thr Ile Val Leu Pro Tyr Phe Ile Gln Phe Met Glu	
130 135 140 Leu Arg Arg Met Glu His Leu Val Lys Phe Trp Leu Glu Ala Glu Ser	
145	
Phe His Ser Thr Thr Trp Ser Arg Ile Arg Ala His Ser Leu Asn Thr 165 170 175	
Met Lys Gln Ser Ser Leu Ala Glu Pro Val Ser Pro Ser Lys Lys His 180 185 190	
Glu Thr Thr Ala Ser Phe Leu Thr Asp Ser Leu Asp Lys Arg Leu Glu 195 200 205	
Asp Ser Gly Ser Ala Gln Leu Phe Met Thr His Ser Glu Gly Ile Asp	
210 215 220 Leu Asn Asn Arg Thr Asn Ser Thr Gln Asn His Leu Leu Leu Ser Gln	
225 240 Glu Cys Asp Ser Ala His Ser Leu Arg Leu Glu Met Ala Arg Ala Gly	
245 250 255	

-5 of 185-

```
Thr His Gln Val Ser Met Glu Thr Gln Glu Ser Ser Ser Thr Leu Thr
                                265
                                                    270
            260
Val Ala Ser Arg Asn Ser Pro Ala Ser Pro Leu Lys Glu Leu Ser Gly
                            280
        275
                                               285
Lys Leu Met Lys Ser Ile Glu Gln Asp Ala Val Asn Thr Phe Thr Lys
    290
                        295
                                            300
Tyr Ile Ser Pro Asp Ala Ala Lys Pro Ile Pro Ile Thr Glu Ala Met
                   310
                                       315
Arg Asn Asp Ile Ile Ala Arg Ile Cys Gly Glu Asp Gly Gln Val Asp
               325
                                   33Ō
Pro Asn Cys Phe Val Leu Ala Gln Ser Ile Val Phe Ser Ala Met Glu
            340
                                345
                                                   350
Gln Glu His Phe Ser Glu Phe Leu Arg Ser His His Phe Cys Lys Tyr
       355
                            360
                                                365
Gln Ile Glu Val Leu Thr Ser Gly Thr Val Tyr Leu Ala Asp Ile Leu
   370
                        375
                                           380
Phe Cys Glu Ser Ala Leu Phe Tyr Phe Ser Glu Tyr Met Glu Lys Glu
                    390
                                       395
Asp Ala Val Asn Ile Leu Gln Phe Trp Leu Ala Ala Asp Asn Phe Gln
                405
                                    410
                                                       415
Ser Gln Leu Ala Ala Lys Lys Gly Gln Tyr Asp Gly Gln Glu Ala Gln
                               425
           420
                                                   430
Asn Asp Ala Met Ile Leu Tyr Asp Lys Tyr Phe Ser Leu Gln Ala Thr
       435
                           440
                                              445
His Pro Leu Gly Phe Asp Asp Val Val Arg Leu Glu Ile Glu Ser Asn
                       455
                                           460
Ile Cys Arg Glu Gly Gly Pro Leu Pro Asn Cys Phe Thr Thr Pro Leu
                    470
                                       475
465
Arg Gln Ala Trp Thr Thr Met Glu Lys Val Phe Leu Pro Gly Phe Leu
                485
                                   490
Ser Ser Asn Leu Tyr Tyr Lys Tyr Leu Asn Asp Leu Ile His Ser Val
                              505
           500
                                                  510
Arg Gly Asp Glu Phe Leu Gly Gly Asn Val Ser Pro Thr Ala Pro Gly
                           520
        515
                                               525
Ser Val Gly Pro Pro Asp Glu Ser His Pro Gly Ser Ser Asp Ser Ser
                       535
  530
                                           540
Ala Ser Gln Ser Ser Val Lys Lys Ala Ser Ile Lys Ile Leu Lys Asn
                  550
                                       555
Phe Asp Glu Ala Ile Ile Val Asp Ala Ala Ser Leu Asp Pro Glu Ser
                565
                                   570
                                                       575
Leu Tyr Gln Arg Thr Tyr Ala Gly Lys Met Thr Phe Gly Arg Val Ser
                               585
           580
                                                   590
Asp Leu Gly Gln Phe Ile Arg Glu Ser Glu Pro Glu Pro Asp Val Arg
       595
                           600
                                              605
Lys Ser Lys Gly Ser Met Phe Ser Gln Ala Met Lys Lys Trp Val Gln
                       615
    610
                                           620
Gly Asn Thr Asp Glu Ala Gln Glu Glu Leu Ala Trp Lys Ile Ala Lys
625
                  630
                                       635
                                                           640
Met Ile Val Ser Asp Ile Met Gln Gln Ala Gln Tyr Asp Gln Pro Leu
               645
                                   650
Glu Lys Ser Thr Lys Leu
           660
```

<210> 3

<211> 2363

<212> DNA

<213> Homo Sapiens

<220>

<221> CDS

<222> (138) ... (2126)

<223> AKAP-10-5

-6 of 185-

<22	1> a 2> 2 3> S	073		cleo	tide	Pol	ушох	phis	m: A	to	G					
gcg	ctcc	cgg	āaga	aggg tga	tc c atg	cttt agg	tcgc gga		agtg ggg	cagc ccc	ggc tec	ccct ccg	ctg cgc	gacc cag		60 120 170
								ggc Gly 20								218
								gag Glu								266
att Ile	aaa Lys 45	gct Ala	tca Ser	ata Ile	tcc Ser	gta Val 50	cat His	tcc Ser	cca Pro	caa Gln	aaa Lys 55	agc Ser	act Thr	aaa Lys	aat Asn	314
								cca Pro								362
att Ile	tct Ser	gcc Ala	aac Asn	atg Met 80	gac Asp	tcc Ser	ttt Phe	tca Ser	agt Ser 85	agc Ser	agg Arg	aca Thr	gcc Ala	aca Thr 90	ctt Leu	410
aag Lys	aag Lys	cag Gln	cca Pro 95	agc Ser	cac His	atg Met	gag Glu	gct Ala 100	gct Ala	cat His	ttt Phe	ggt Gly	gac Asp 105	ctg Leu	gly ggc	458
								caa Gln								506
								gac Asp								554
att Ile 140	caa Gln	ttc Phe	atg Met	gaa Glu	ctt Leu 145	cgg Arg	cga Arg	atg Met	gag Glu	cat His 150	ttg Leu	gtg Val	aaa Lys	ttt Phe	tgg Trp 155	602
tta Leu	gag Glu	gct Ala	gaa Glu	agt Ser 160	ttt Phe	cat His	tca Ser	aca Thr	act Thr 165	tgg Trp	tcg Ser	cga Arg	ata Ile	aga Arg 170	gca Ala	650
cac His	agt Ser	cta Leu	aac Asn 175	aca Thr	atg Met	aag Lys	cag Gln	agc Ser 180	tca Ser	ctg Leu	gct Ala	gag Glu	cct Pro 185	gtc Val	tct Ser	698
cca Pro	tct Ser	aaa Lys 190	aag Lys	cat His	gaa Glu	act Thr	aca Thr 195	gcg Ala	tct Ser	ttt Phe	tta Leu	act Thr 200	gat Asp	tct Ser	ctt Leu	746
								tca Ser								7 _. 94

-7 of 185-

						aat Asn										842
ttg Leu	ctg Leu	ctt Leu	tcc Ser	cag Gln 240	gaa Glu	tgt Cys	gac Asp	agt Ser	gcc Ala 245	cat His	tct Ser	ct <i>c</i> Leu	cgt Arg	ctt Leu 250	gaa Glu	890
						cac His										938
						gcc Ala										986
						cta Leu 290										1034
						ata Ile										1082
att Ile	aca Thr	gaa Glu	gca Ala	atg Met 320	aga Arg	aat Asn	gac Asp	atc Ile	ata Ile 325	gca Ala	agg Arg	att Ile	tgt Cys	gga Gly 330	gaa Glu	1130
						aac Asn										1178
						gag Glu										1226
cat His	ttc Phe 365	tgt Cys	aaa Lys	tac Tyr	cag Gln	att Ile 370	gaa Glu	gtg Val	ctg Leu	acc Thr	agt Ser 375	gga Gly	act Thr	gtt Val	tac Tyr	1274
ctg Leu 380	gct Ala	gac Asp	att Ile	ctc Leu	ttc Phe 385	tgt Cys	gag Glu	tca Ser	gcc Ala	ctc Leu 390	ttt Phe	tat Tyr	ttc Phe	tct Ser	gag Glu 395	1322
						gca Ala									gca Ala	1370
gca Ala	gat Asp	Asn	ttc Phe 415	Gln	tct Ser		Leu	gct Ala 420	Ala	aaa Lys	aag Lys	gjå aaa	caa Gln 425	Tyr	gat Asp	1418
gga Gly	cag Gln	gag Glu 430	gca Ala	cag Gln	aat Asn	gat Asp	gcc Ala 435	atg Met	att Ile	tta Leu	tat Tyr	gac Asp 440	aag Lys	tac Tyr	ttc Phe	1466
tcc Ser	ctc Leu 445	caa Gln	gcc Ala	aca Thr	cat His	cct Pro 450	ctt Leu	gga Gly	ttt Phe	gat Asp	gat Asp 455	gtt Val	gta Val	cga Arg	tta Leu	1514
gaa Glu 460	att Ile	gaa Glu	tcc Ser	aat Asn	atc Ile 465	tgc Cys	agg Arg	gaa Glu	ggt Gly	999 Gly 470	cca Pro	ctc Leu	ccc Pro	aac Asn	tgt Cys 475	1562

-8 of 185-

ttc Phe	aca Thr	act Thr	cca Pro	tta Leu 480	cgt Arg	cag Gln	gcc Ala	tgg Trp	aca Thr 485	acc Thr	atg Met	gag Glu	aag Lys	gtc Val 490	ttt Phe	1610
ttg Leu	cct Pro	ggc	ttt Phe 495	ctg Leu	tcc Ser	agc Ser	aat Asn	ctt Leu 500	tat Tyr	tat Tyr	aaa Lys	tat Tyr	ttg Leu 505	aat Asn	gat Asp	1658
ctc Leu	atc Ile	cat His 510	tcg Ser	gtt Val	cga Arg	gga Gly	gat Asp 515	gaa Glu	ttt Phe	ctg Leu	ggc Gly	999 Gly 520	aac Asn	gtg Val	tcg Ser	1706
ccg Pro	act Thr 525	gct Ala	cct Pro	ggc ggc	tct Ser	gtt Val 530	ggc Gly	cct Pro	cct Pro	gat Asp	gag Glu 535	tct Ser	cac His	cca Pro	glå aaa	1754
						tct Ser										1802
aaa Lys	ata Ile	ctg Leu	aaa Lys	aat Asn 560	ttt Phe	gat Asp	gaa Glu	gcg Ala	ata Ile 565	att Ile	gtg Val	gat Asp	gcg Ala	gca Ala 570	agt Ser	1850
ctg Leu	gat Asp	cca Pro	gaa Glu 575	tct Ser	tta Leu	tat Tyr	caa Gln	cgg Arg 580	aca Thr	tat Tyr	gcc Ala	gjå aaa	aag Lys 585	atg Met	aca Thr	1898
ttt Phe	gga Gly	aga Arg 590	gtg Val	agt Ser	gac Asp	ttg Leu	595 Gly 999	caa Gln	ttc Phe	atc Ile	cgg Arg	gaa Glu 600	tct Ser	gag Glu	cct Pro	1946
gaa Glu	cct Pro 605	gat Asp	gta Val	agg Arg	aaa Lys	tca Ser 610	aaa Lys	gga Gly	tcc Ser	atg Met	ttc Phe 615	tca Ser	caa Gln	gct Ala	atg Met	1994
						aat Asn										2042
tgg Trp	áag Lys	att Ile	gct Ala	aaa Lys 640	atg Met	ata Ile	gtc Val	agt Ser	gac Asp 645	gtt Val	atg Met	cag Gln	cag Gln	gct Ala 650	cag Gln	2090
tat Tyr	gat Asp	caa Gln	ccg Pro 655	tta Leu	gag Glu	aaa Lys	tct Ser	aca Thr 660	aag Lys	tta Leu	tga *	ctca	aaac	tt		2136
caac	acag gggg	cc a ag a	.atga .caat	aaac ccta	a go g ga	acta	tatt	tct cta	gato atgo	tgt agt	cact	gttg tgta	tt t	ccaq	ttett ggaga attgg	2196 2256 2316 2363
<210 <211		2														

<212> PRT <213> Homo Sapiens

<400> 4

Met Arg Gly Ala Gly Pro Ser Pro Arg Gln Ser Pro Arg Thr Leu Arg

1 5 10 15

Pro Asp Pro Gly Pro Ala Met Ser Phe Phe Arg Arg Lys Val Lys Gly

-9 of 185-

Lys	Glu		20 Glu	Lys	Thr	Ser		25 Val	Lys	Ser	Ile		30 Ala	Ser	Ile
Ser		35 His	Ser	Pro	Gln		40 Ser	Thr	Lys	Asn		45 Ala	Leu	Leu	Glu
Ala 65	50 Ala	Gly	Pro	Ser	His 70	55 Val	Ala	Ile	Asn	Ala 75	60 Ile	Ser	Ala	Asn	Met 80
	Ser	Phe	Ser	Ser 85	Ser	Arg	Thr	Ala	Thr 90		Lys	Lys	Gln	Pro 95	
			100		His			105					110		
		115			Thr		120					125			
	130				Ile	135					140				
145					His 150					155					160
				165	Trp				170					175	
			180		Leu			185					190		
		195			Phe		200					205			
_	210	_			Gln	215					220		_		_
225					Asn 230					235					240
	_	-		245	His			_	250				_	255	-
			260		Met Ser			265					270		
		275					280					285			
	290				Ile	295					300				
305					310					315					320
				325	Ala	-			330					335	
•			340		Leu			345					350		
		355			Glu		360					365			
	370				Thr	375	•				380				
385					Leu 390					395					400
				405	Leu				410					415	
			420		Lys -		-	425					430		
	_	435			Leu		440		_			445			
	450				Asp	455					460				
465					Gly 470					475					480
				485	Thr				490				_	495	
			500		Tyr			505					510		
Arg	Gly	Asp 515	Glu	Phe	Leu	Gly	Gly 520	Asn	Val	Ser	Pro	Thr 525	Ala	Pro	Gly

-10 of 185-

	_					_		_		_	_		_	_	
Ser Val 530		Pro	Pro	Asp	G1u 535	Ser	His	Pro	Gly	Ser 540	Ser	Asp	Ser	Ser	
Ala Ser 545	Gln	Ser	Ser	Val 550	Lys	Lys	Ala	Ser	Ile 555	Lys	Ile	Leu	Lys	Asn 560	
Phe Asp	Glu	Ala	Ile 565		Val	Asp	Ala	Ala 570	_	Leu	Asp	Pro	Glu 575		
Leu Tyr	Gln	Arg 580		Tyr	Ala	Gly	Lys 585		Thr	Phe	Gly	Arg 590		Ser	
Asp Leu	Gly 595		Phe	Ile	Arg	Glu 600		Glu	Pro	Glu	Pro 605		Val	Arg	
Lys Ser 610		Gly	Ser	Met	Phe 615		Gln	Ala	Met	Lys 620		Trp	Val	Gln	
Gly Asn 625	Thr	Asp	Glu			Glu	Glu	Leu			Lys	Ile	Ala	Lys 640	
Met Ile	Val	Ser		630 Val	Met	Gln	Gln		635 Gln	Tyr	Asp	Gln		-	
Glu Lys	Ser	Thr 660	645 Lys	Leu				650					655		
<210> 5 <211> 21 <212> Di <213> Ai	AV.	icial	L Sec	quenc	ce										
<220> <223> 0]	ligor	nucle	eotid	le Pı	cime	:									
<400> 5	cat s	gtgca	attga	ıg g											21
<210> 6 <211> 43 <212> DN <213> An	VA.	icial	L Sec	quenc	:e										
<220> <223> O]	ligor	ucle	eotid	le Pr	imer	•			÷						
<400> 6 agcggata	aac a	attt	caca	ıc aç	ıggat	caca	ı caç	ccat	.cag	cag					43
<210> 7				_					_	_					
<211> 23 <212> DN															
<213> Ar		.cial	. Seq	quenc	:e										
<220> <223> Ol	ligon	ucle	eotid	le Pr	imer	•									
<400> 7 agcggata	ac a	attt	caca	ıc ag	g										23
<210> 8 <211> 19 <212> DN <213> Ax	IA.	.cial	. Seq	quenc	e										
<220> <223> Ol	.igon	ucle	otid	le Pr	imer	,									
<400> 8 ctggcgcc	ca c	gtgg	rtcaa												19

-11 of 185-

<210><211><212><213>	20	
<220> <223>	Oligonucleotide Primer	
<400> tcccaa	9 aagtg ctggaattac	20
<210><211><212><212><213>	21	
<220> <223>	Oligonucleotide Primer	
<400> gtccaa	10 atata tgcaaacagt t	21
<210><211><212><213>	20	
<220> <223>	Oligonucleotide Primer	
<400> cccaca	11 agcag ttaatccttc	20
<210><211><211><212><213>	43	
<220> <223>	Oligonucleotide Primer	
<400> agcgga	12 Ltaac aatttcacac agggagctag cttggaagat tgc	43
<212>	162025	
<222> <223>	allele 83587 Nucleotide sequence of Chromosome 17 with genomic sequence of the allelic variant AKAP10-6	
gcactt ccaaca gcacct tggagg ctctgt	ctat ttcaaaagaa acaaatgggc caagtatggt ggctcatacc tgtaatccca tggg aggccgaggt gagtgggtca cttgaggtca ggagttccag gccagtctgg tggt gaaacactgt ctctactaaa aatacaaaaa ttagccgggc gtggtggcgg gtaa tcccagctac tcaggaggct gaggcaggag aattgcttga acctgggaga ttgc agtgagccga gatcgcgca ctgctctcca gcctgggtgg cagagtgaga ctca aaaagaaaca aagaaataaa tgaaacaatt ttgttcacat atatttcaca aaat gttaaaggta ttatggtcac tgatatcctg tttcattctt tatataatca	60 120 180 240 300 360 420

-12 of 185-

ttaaqtttqa	aatgtatact	tgcactacta	acacagtagt	taatcttaqt	cctacaaqtt	480
actoctttta	cacaatatat	tttcctaata	tgtatgcact	aatatttata	tacototita	540
			atctttttct			600
ttcagaagga	ttgacagagc	aaaatqattt	gatgaagtat	aaaagtcaca	taataaataa	660
			tcactattga			720
			tgtaccaccc			· 780
tacacataga	aaqcacaatq	gtgaataatt	aaaaaattgg	aatttatcag	acactqqatt	840
			gtttttttgt			900
	tatagecaga	geoceeace	geoceeege	cccacaaaac		
attttttat	tttttgtaga	greggagrer	cactgtgtta	cccgggctgg	tctagaactc	960
ctggcctcaa	acaaacctcc	tgcctcagct	tcccaaagca	ttgggattac	agacatgagc	1020
			tatgaagctt			1080
			tgatggtctc			1140
attcctcaag	ggcaaaataa	catttctcag	tgcaaaactg	atgcacttca	ttaccaaaag	1200
gaaaagacca	caactataga	agcatcatta	aaagctgcac	tcttcagagg	ccaaaaaaaa	1260
						1320
			ttagaagagc			
			ttagcaaatt			1380
acatcaaqqa	acatcaatgg	catgccatgt	ggaagaggaa	gtgctagctc	atgtacaaac	1440
cagtagataa	tttcaacttg	ctgccgaatg	aaacctcttt	graaggtatg	aatcagcact	1500
tagtagataa	- total court	cegoegaaeg		gedaggedeg	auccageace	
teteatgttt	gttttgettt	gttttgttt	gtttttagag	acaggccctt	getetgteae	1560
acaggetgga	gtgcagtggc	acgatcagag	ctcactgcaa	cctgaaactc	ctgggctcaa	1620
gggatcctcc	taccttaacc	teccaagtag	ctgggactac	addeceaeca	tacccaacta	1680
						1740
			tcactagcac			
			ggtctcaggg			1800
agaaagaaaa	gagattacta	catagagtag	aagaagttgc	acttcatqcc	agtctacaac	1860
			atctaaatca			1920
			aggaggtgag			1980
ccacctgggc	ttcacctccc	gtcagatcag	tgatgtcatt	agattctcat	aggaccatga	2040
			gtaggttttc			2100
						2160
			ccctgagatg			
			ttacagtgag			2220
atattacaat	gtaataataa	tagaaataaa	ggcacaatag	gccaggcgtg	qtqqctcaca	2280
			gcaggcggat			2340
			ctactaaaaa			2400
gtgtggtggt	gggcacctgt	agtcccagct	actcgagagg	ctgaggcagg	agaatggtgt	2460
gaacctggga	ggcagagctt	gaggtaagcc	gagatcacgc	cactgcactc	cagcetggge	2520
						2580
			aaaaaaaaa			
aaatgtaatg	tggctgaatc	attccaaaac	aatccccca	ccccagttca	cggaaaaatt	2640
ctcccacaaa	accagtccct	ggtgccaaaa	aggttgggga	ccqctaatct	aaataatcta	2700
atcttcattc	aatoctaaaa	aatgaataaa	ctttttttta	aatacacoot	ctcactttat	2760
			cagctcactg			2820
ccagcgatcc	tcccacctaa	acttcctgag	tagctgggac	tacaggcacg	caccaccatg	2880
cccagctaat	ttttaaattt	tttatagaga	tgggggtctc	accatottoc	ccagactggt	2940
ctcaaaccct	agact casact	gatgeteest	caaactcctg	gagtgaagtg	atcetectte	3000
CCCaaacccc	gggcccaagc	gacccccc	caaacccccg	gactcaagtg	accecece	
errageeree	caaagtgctg	ggattacaag	catgagccac	tgtacccagc	tggataaaca	3060
ttttaagtcg	cactacagtc	atggacaatc	aggcttttca	acatgcagta	tggacagtga	3120
			acatgtgata			3180
						3240
			tgaggaaaaa			
ataaggctga	taaagaccat	ttctgtgatc	tcaggtgatt	cactcaagta	gtatatttca	3300
gtaatcatta	tctggaacag	cctgaatctt	aaccaaaata	ccatgatttt	ttaatgctgt	3360
			aatgtaggca			3420
			aaattaaaga			3480
attogcatat	ttaaaaacta	cactgaaatg	ctgcaaaatg	atataaagaa	acattttcca	3540
gaatgaaatg	caatcaaaga	gtggattagg	aatctactca	ccattatcaa	ctaaatagaa	3600
			tgtaatctca			3660
aggtggattg	cttgaggcca	ggagctcaag	accageetga	gcaacatagc	aaaactctgt	3720
ctctacaaaa	aaaaaaaaa	attaaccagg	catggtggca	gatgettata	atcccaocta	3780
			agcccaggag			3840
			gagagagacc			3900
aacaaaaaac	acttaacctt	cctgtttttt	gctgttgttg	ttgttgtttq	tttgttttga	3960
gatggagtct	cactctotto	cccagactag	agtgcagtgg	cataatetta	geteactgea	4020
accteteect			-5-5-45-55	-3-5	3200000000	4080
agetergeet	Cocyygeteda	cyclaticic	ctgcctcagc	cledegagta	gurggaura	
taggcgcccg	ccaccacgcc	cggctacttt	tttgcatttt	tagtagagat	ggggtttcac	4140
cgtgttagcc	aggatqqtct	tgatctcctq	acctcgtgat	ccacctqcct	cggcctccca	4200
	·	_		_		

-13 of 185-

aagtgctggg	attacaggca	tgagccaccg	cacccggcca	acctttctgt	tttttagttt	4260
gatatgcttg	ttaactcagc	agctgaaaga	atgctgaaag	tggccttcag	taaaaaaatt	4320
		atatttaatc				4380
caaaaacact	catcatcatt	cctgatgacc	tctaattctg	gtttcggctt	tctatttcaa	4440
		aaatggaagg				4500
		taagatetet				4560
		tcagaggatt				4620
					tcaaagaggt.	4680
		taaaatgcct				4740
aatcattgaa	aatgcttttc	cattttaagc	ttaggtgagg	tgtcttagga	aacctctato	4800
		ggaggtaaac				4860
atctcatttt	ttaggcttcc	taatcccttg	aagcacaatc	gaaaaaagccc	tggatctctt	4920
ttctgcacat	atcatcgcgg	aattcattcg	gettecagea	agetgacact	ccatgataca	4980
agcggcct.cg	cccttctccg	gacgccagtc	cttactacaa	ttagctagga	tgaggggttt	5040
		tctgcgggtt				5100
		gageteetgg				5160
		tgaatatttt				5220
		aacccacagc				5280
		ctgaaaagtc				5340
		gatctagcta				5400
cccagagtgc	agtectecta	aagaggctca	accetaagea	aacccctaca	ccaggagggt	5460
gggtctgaga	cccacatage	acttcccaag	gtgcatgctc	ggcccccgca	ctdaaacadc	5520
taaacacaaa	cctacatage	tggagaactc	tracactrac	aacaaaaaaa	accesatage	5580
		gaacacagag				5640
		cagtgacggg				5700
		tggctagaga				5760
		actctgctaa				5820
		tatcccatta				5880
acattotoac	catgactatt	accaaaaaat	geegeeagag	caactattoo	tanagaacyc	5940
gagaaactgg	aacttttata	cactgtttat	gagaatgagagag	aataaaaaa	ctactataa	6000
		aaagagtaaa				6060
cactocatos	aggeteece	aatatgtggt	atatacatac	catagagatac	tattcaccct	6120
ctasasasas	aggggcagac	tctataacat	gcaacacac	ggagtat	tancageet	6180
ttactaataa	aataaggaaac	tcatagaaag	acaaatacto	caccactcca	cttatatgag	6240
ataccasasa	tagagaaatt	catagaatca	aadadtacaa	tagaaattac	ctagaactac	6300
acaccaaaaa	accadact	actaatcaac	gagtataa	ttggaggttac	ctagageege	6360
taagetetea	acatcactc	tacaacactg	tacctacact	caacaataat	gtatgatgat	6420
cttaaaaatt	tattaagag	agattaacaa	atotagage	tocacaacaac	taattaaata	6480
ttcttaccac	agteauggge	aaaaagaata	traarcccar	gagttggaga	ctacctccc	6540
taacatooto	ageadatata	tctacagaaa	atacasasat	tagggggggg	tagacataca	6600
ctcctaggeg	aaaccccgcc	ggaggcttgc	ttgaggggag	gaggeageag	ctgcaggegea	6660
ccatcattcc	accactotac	tccagcccag	atgageceag	gaggccaagg	ccccccaaa	6720
		cattttaaaa				6780
		cctcatctag				6840
		agtgatgtga				6900
		tgcctaactt				6960
		gagagaactg				7020
catagagagat	tctgggaccc	accggctatt	tttgatggct	gaacaccctg	ctacadada	7080
		gtgggatgaa				7140
		tctagtcaat				7200
tcasattcac	attttagast	gatttttat	ggggacaacc	caaccaaaga	agaaagacgc	7260
assactacsa	gcaagaac	tgttaagagg	caactcaaac	agtatagata	ataagagaga	7320
		aaatcagaac				7380
		ttgtatcttg				7440
		gtttgccgtg				7500
		gcttaaaaca				7560 7560
accepacaa	gataggetta	gctggctggt	tetegetese	agettatass	gaggttgggcc	7620
tcaacatctc	adctdddd+	gcatcatctg	aagggtcag	tagaaaaaaa	gaggergead	7680
		cctgacaagg				7740
tcattcccs	atazacatat	ctatagcatt	actagaacat	catacasta	tagacactta	7800
cttctctcac	catgageeeet	ctgagagaga	garraarar	described and	tattetteet	7860
actectacte	ctaacactat	ggacctactc	ctaacactct	cacttetee	ttattccatt	7920
agttagaaag	ggaactaacc	tccacctctt	gaaataagaa	atataeeee	atttataat	7980
-Jeeugaaay	22aaccaage	LUCACCCCC	Judacaayaa	gryccaaaya	accegeggae	, 500

-14 of 185-

atatttaaaa	atcatcacac	tgtggaagtg	gatagggggt	tcaattaatg	ctgaacttga	8040
aatgcctgag	acattcaaat	gtccaacagg	caatgaacat	acccatagat	ggtcatgact	8100
ttagcaagaa	tagaggaaga	tcacagaatt	aaggaggaat	tgaaaggtaa	aagaagtgga	8160
gtcagattcc	ccctgaaaag	tgagccatga	aaggaacttt	aactattgag	ttagaggtca	8220
gagtaggaaa	tttcggtgga	attcttttt	aaagaaagga	accatataaq	catqttttqa	8280
ggtagagga	qaataaatca	gtagacaggg	agaggtaaaa	aacataaatq	ataggggata	8340
		aatcccttac				8400
		aaaataagaa				8460
		aacaaactgt				8520
		ccattttgtt				8580
		ttgtcttcct				8640
		acctctctag				8700
		agtgatgcct				8760
		acagacttgg				8820
					aaggtatctt	
		tcctcaatgt				8940
		tttttggtct				9000
		aatgttcaat				9060
		tagatgaaca				9120
		ccattttagc				9180
		taaaacctac				9240
		cttaaaaact				9300
		gtgactatta				9360
		ccttaataac				9420
		ggggtcagag				9480
		gatttgtaca				9540
		tctaataaaa				9600
						9660
		accctacttg				9720
		tcccccacta				9780
		taaaacgctg aaaaattcaa				9840
				-		9900
		gaaagcatat				9960
		tgctagctgg				
		cagatcactt				10020
		actaaaaata				10080
		gaggctgagt				10140
		gcaccactgc				10200 10260
		aagaaggaaa				10320
		aagaaagaaa				10320
		gaaagaaaga				
		ttttcagtaa				10440
		ctctaaaatt				10500
		agagttacta				10560
		ggatgcttac				10620
		atactccaga				10680
		ccacattacc				10740
		ctttcagcaa				10800
		attgtgctca				10860
		ataagacttc				10920
		aaattttaaa				10980
		aattaggttc				11040
		caacaaatgg				11100
		cttactccta				11160
		gttttaagtt				11220
		ccatgttggt				11280
		acacctgtaa				11340
gatcacctga	ggtcgggagt	tegagaccag	cctgagcaac	atggagaaac	cccatctcta	11400
		aggcatggtg				11460
ggctgaggca	ggagaatagc	tttaatctgg	gaggcacagg	rrgcggrgag	ccgagatatt	11520
		agagcaaaac				11580
		aaaatgaaaa				11640
aatcctcgga	cccttaggat	ggggaatgcc	tataatataa	aaaccctgaa	gutataaaag	11700
agaaaatcac	ctacatacaa	accaaatctt	tctacatgcc	taaaacatag	cacaaacaca	11760

-15 of 185-

gctaaataat	catagctgaa	tgaactggga	aaacaaaact	tgactcatat	ccagacagag	11820
ttaattttcc	tacacataaa	gagtacctat	ataaacccaa	caaaaaaacc	accactaacc	11880
						11940
		taatgaacag				
ggcacataag	atgctcagac	tgacttttac	ttatttattt	tttgagagac	agggtctcac	12000
gatgttgccc	aggttaggct	caaactcctg	ggctcaaatg	atagtaccag	gactacaggt	12060
		cctcaaccac				12120
		tagaatggca				12180
ttggtgagaa	tgtgaggaga	ctggcactct	cattttttgc	tgatagcata	tatatactga	12240
tggcttctat	ggaaagcaat	ctggcagcgt	ctatcaaatq	tacaaqtqca	tatatecttt	12300
gacaaagcaa	ttccactcta	ggaatgtgtt	ctatatoott	atacttccta	agactaggaa	12360
ctorographs	2000202000	gcagaagata	2+4+4+++	gogtaattaa	3336633366	12420
t-bb	agggacaggg	gcagaagaca	ALCCCCCCCC		CCGLCaaaca	
Lgttgaattt	tatatactgt	aatatattat	ttttcacaaa	agataatttt	taagcgatat	12480
gtctgggaat	ttttttttt	cttttctgag	acagggtctc	actctgtcat	ccaggctgga	12540
atgccatggt	atgatctcag	ctgactgcag	cctcgacctc	ctgggttcaa	gcaatcctcc	12600
cacctcagcc	tectgagtag	ctgggactac	aggcacgtgc	catcatocta	atttttgtat	12660
atacagggtc	tractatott	gcccaggcta	atotcasact	cctacctca	acceaticac	12720
ccaccicagg	Ciccaaagig	ctgggattac	aggegegage	caccgegeet	ggccctggga	12780
		atctactctc				12840
aattcaacct	ataatgaaag	tagagaaggg	cctcaaccct	gagcaacaaa	cacaaaggct	12900
atttctgaga	caggaatttg	ctgaacaaaa	tcgagggaag	atgacaagaa	tcaagactca	12960
		gctcacacct				13020
gacagateae	gaggudagga	gattgagacc	atactggcta	acacagtgaa	acceagtete	13080
tactaaaaat	acaaaaaatt	agccgggcgt	ggtggcaggt	gcctgtagtc	ccagctactt	13140
		tggcgtgaac				13200
		ctgggtgaca				13260
aagactcatt	tetetagate	ttgagccgta	ttcaaattta	teteacetta	atasasaatt	13320
		ctgtgggccc				13380
gtcaaggaca	ccaatggaga	aaagcactaa	caccattatc	tgatgaacat	tacgtgaaga	13440
agggtaagaa	gtgaagtgga	attgctgaag	aagtcagtga	aagcggacat	tcatttgggg	13500
aaatggaata	taggaaatcc	ataaaagtga	ttaaaaagat	gttagaggct	gaggggggg	13560
		gagaccatcc				13620
aaaaacacaa	aaaactagcc	aggegtggtg	gcaggcacct	gragicecaa	ccacceggga	13680
		atgaacctgg				13740
					aaagttagat	13800
acgagagata	aagatccaac	agacacacaa	ctqctaattc	tgaacagaac	aaaacaaatq	13860
acacaggaaa	agaaaattta	agatataaca	ccagaaaact	ttcctcaaat	tgagtaactg	13920
						13980
aacccatage	ctgaaagggt	ttagcatatg	Ccaagaaaaa	LCagragage	Ccaaccayca	
		tggtgattct				14040
		catctgcagt				14100
aagaatgctg	cctactgage	cagaagggag	agaaagtgac	ccaacacatc	tttaccaagt	14160
		aaaggctgca				14220
						14280
		acaagcattc				
		aagttaaatg				14340
tagcttcaaa	tcagtctggt	cccatctacc	aacatctctc	gcccggcttt	cctgcaatag	14400
tcagcacctt	tecetectee	cagtcttgtc	ccctqqaqtc	tgctctcagc	ataqcaqaqt	14460
gaccacatca	acacccaagt	cagagccctc	cagtgcgcac	tootctacaa	aggggttggg	14520
		tccggatcct				14580
acceceace	teacgigeee	teeggaceee	cgcgacgcgc	Coccegeaca	tettagtagt	
		tcctgtacat				14640
ggeegeetee	tccacctgca	gtgagttaac	tcccttacct	actctaggtc	attgctcaaa	14700
tgtcagcatc	tcaatggggc	cctccctgac	taccctattt	aaattctaca	tactcccctt	14760
gaccccatgg	acctcactca	ccctattcca	cttttattct	tacaatttag	cacttottct	14820
tettetaatgt	accccaagac	ttactcattt	accacacty	Legecacece	Ciccagiada	14880
taaactccag	aggggcaggg	atttctgtct	atttattcat	ttctttatcc	ctaggacata	14940
gaacagggca	tagttcagag	tattcaatgt	tatcaatgaa	tgaactagca	gtagtaccag	15000
ttccagttag	gcacagaatt	aaatctaaat	agaattaaat	ctcatggtct	gggttaacta	15060
tagatagaaa	attagatata	attttaagaa	gcctagaaag	aaaaaattaa	taatgtaaaa	15120
ataatattaa	tttgataata	ataacaaaaa	ctctcccaca	cactatacat	casatotoca	15180
ataggagget-	at an arrange	taaaataaa	annean	accegigget	-aaaccigca	
accecageta	cccaggaggc	Lyayytggaa	ggatcacttg	agaccagagt	tcaagactca	15240
gcctaggcaa	cacggcaaga	aactgtctct	aaaaaatta	aaacttaaat	ttttaaaaaa	15300
gaattctcaa	agcgtçacaa	aaactggaga	ttaaggtaca	ggaagtgtga	agtaatatta	15360
ctatoctaat	gattttttt	ttttttagaa	aggtataacc	aaaagatttc	tttctcaagt	15420
coataaacto	agaaagataa	gcatatcttc	caattaacac	adddddaacac	aaaaccacat	15480
-32244466	agadagacaa	ttagtttcca	attanana-	~559999a99a	ttatttagat	
~~uacaaadt	aayacacaad	coagetteda	yrryadadda	ayaytaggag	LLALLEEGEA	15540



-16 of 185-

tcacctcacc tgtgacctcc cccagcccaa aaaacactac tgataaacag ggtagaaaag catcatctca gataaagcag gaaaaactgc cacagtctca aaccacaaac tataagcaca 15600 15660 cacctggcca accetgccaa gtetgggete agtaggagga acgtgetgag agetaggatg 15720 taccaactta gacattetgt gggatacaga tgtccctgga agggtcacac catetcaaag gcacetgtaa tgcccactga ttacagccac catatgtgag agagaaactc agggcactta 15780 15840 gagagtataa caagaaccit atgicatcig agaigaggaa teeteageee igcaaattaa 15900 ccaactettt agaacaactg gcaaaacata aatatecaca aettttgttt cagtaattee 15960 actettagat ateaateeaa agtacatgag acagcagata cacacacaaa atggtattta 16020 ctgcagcatt gtttataata gcaaaaaaca agaaataatc catatgtctc aataggatac 16080 tgggtacatg agggtatgta cccatcattc aaccatcaaa aagagtgata tggatgtcca 16140 cagatggaca taaaaagctg tgtgttacgt gaaaacaaac tcaagcagca gcaggatggg 16200 cttatgatag tcagtatgag ctaatttctg gaaaaaaaaa tctagtgtgt gcacagaaaa 16260 catctgaaag aacagaaaca aaactatcag cagaatattg agatgtttta ctaagttgta 16320 tatctatact gcttgtaatt tttaccccaa gcaagaatta ctttttggaa aaagaaaatt 16380 caggaaataa agcatttctt taaacttcat gtttaaacaa atggtgatgg aataaaagag 16440 ttettattea teataaaeae acaeageaea eatgeaegea tgtgegtgag caeaceett 16500 acttgataaa taccatgttg aatattttag tettteettt taggttetat ceetteacte 16560 aaaatgcggt tataaataaa tgtacttttc atgtgccttc tgcctaaacc cactttaata 16620 taactttaca gtcccattat cattatagtc tcaaagctag actcagcctg aaactaccct ttcatttgga acccttatta aaatgccaca tacagctcct tcaaataaaa acaaacccta 16680 16740 ggacctgaca ctaggettee tttgttgeta etcataatgg ccaagttetg tgettataat 16800 acatettett teattttatt getacatate caagggttit atatgttttt ettattatat 16860 cttaattcaa aacaccatca cgctcttttc cagatgaaaa taaggaaaag aaattgagca 16920 actgactgac ttaaaggtca taaaactata tagtagcaga gtcagcaaaa gaagaaacac 16980 acateteeca agtagagget gaaaaccagt accatteace tecagggtga getatataca 17040 gattacaaag tcaccttctc taaatgttca aactgaatcc catacccata ctttaccact 17100 acctegtaag aacageetea gatettgtta tageettttt tttageatge tgaageeaat aaaatgette eeatteagea agagaaacaa gttetgaaac actgaataat etgeeeaggg 17160 17220 cctatgaaca tttccactgt gagaaatgtt ctccactgtg tggagaagat ccttactctt 17280 ctccacacag gcagaacatt agaaaaattc ttggattcta tgatgcacag cttaggagtc tgtttagcac aatttaagtc caaatagtta ttaaatcctc ctctgttcca gaaacagtgc 17340 17400 taaatactgt gaatataaaa attgaaaaga tactctcctg gctcccaaga aagtcagcca 17460 gatagaggag acacaggcac acaaatcact gtcacatgaa gctctacctc cctaacttca aacgagggcc taagtcacca agaatacagt agcagttgtg actacgagta actactataa 17520 17580 ttcaatactt tatcttccct tagaaaactc ttctcccttg gaaatttatt tgcattcta 17640 aataccattc cttactaaaa ggaagcaggg ctccttgggg aaatagctga ttctaggtgt ggactatgaa atgaaaatgg tgagtctggg acatcccatg ttgcccagaa atcaaggaac 17700 17760 tgcccaaaga ttaacagagt catgttaaat ggacctaaga gtgaaccaga aggagctcac 17820 tttgccccgc gtggaacaat ttcaagaaaa acatgacagt aatgaattat aaaacatgaa 17880 ttaaaataca tattggtact aaaaagagaa caaaaggatg tggctttgga taaagctctt 17940 cttcatggaa gaataccagc taataaatgt aaaggaaatg agagaattag aaaaattatc 18000 attttgtaaa cettaatata tteaeetaga eatgetaaaa eeaetgagta aaaggetget 18060 tgggaagagg atgctcacat gatctcagag tttcacacca cagataattt attagataca 18120 ggaaggaaga tgtgatcaag cttcctgtga cccccagcca ggccccacaa cactatgtgc ctccttgtga tgtgggagct acacagcatc gcccacacag cttctcgcca aaactgtttg 18180 18240 aagctaatca caagggaaga actggacagc ttctgaccat gagacgctcc accagacaac 18300 18360 18420 acagagcaga catacttttc cctgttcttc ccagtaagtg gtaataaaaa ccctcaacac 18480 tagatataaa acaaatataa gaaggttctg gaaggggaag aggaggcaga ctatccaggt 18540 geettgagge ccacagaaca acccagtgat gggtteactg ggtettett ttgetteatt ateteagaet tggagetgaa geageaggea actteaaac accaaggge acagattgaa 18600 18660 aagccccaag aaaagcctgc cctctctagc caaaggacca ggaaggagac agtctaatga gatggaacac atttagacag taactgccca tttaccagca ataactgagc agggagccta 18720 18780 gacttccagt cttgtgagga cgtaccaagg tacccaacac ccccaccaag gctgagtaag 18840 gactgcgact tttatccctg catggcagta gtaaggagcc catccctcac ccgccagcag tgtcagggga acctggactt ccactcccac ccaggagtga tgaggccctc cctgctgggg 18900 18960 tcatgtcaga ggaggcctag tggagattca gtgacttaac cttttcccag agataatgag 19020 gccacctttc ctcctcttc ccccatggtg acagtgaaag cactgtggca agcagtaggc actcctaccc ctcctagcca gggaggtatc agggaggcca agtagggaac cagaataccc 19080 19140 acaaccaccc agcagcaaca ggggtccccc acccattgg gtgtcaatgg aagcagageg gaaagcctgg atatttaccc ccatctagaa gtaacaagct gatgtccccc ttcttctact acaatggtgt tcaaaacagg tttaaataag gtctagagtc tgataacgta atacccaaat 19200 19260 19320

-17 of 185-

cgttgaagtt	ttcattgagg	atcatttata	ccaagagtca	ggaagatccc	aaactgaaag	19380
	caattgacag					19440
	aagcacatat					19500
	ctttgggagg					19560
	acggtgaaac					19620
gatagtagac	acctgtagtc	ccagctactc	gggagcctga	ggcaggagaa	togcatgaac	19680
	gagcagtgag					19740
	cccaaaaaaa			~		19800
	caaatgaaaa		_			19860
aggtgcagtg	gctcacagcc	totaatccct	gcactttggg	aggetgagge	aggcggatca	19920
cctgaggtca	ggagtttgag	accageetga	ccaacatgga	gaaaccccgt	ctctactaaa	
	tagccagtca					20040
	atcgcttgaa					20100
	actccagcct					20160
	ggaaatttta					20220
	agggggcaga					20280
acccaatato	aagaacagaa	agaaaataga	ctggccaaaa	aataaagaag	aaaaaagagg	20340
	ggaatgatgg					20400
	agaaagtctc					20460
	aggaaagaga					20520
	cccaaatttg					20580
	cccaataaaa					20640
	aacgtcttga					20700
	aacagatttc					20760
	ctgaaagaaa					20820
	caatgggaaa					20880
	ctcccctaaa					20940
	gaatccagaa					21000
	ataaaatttc					21060
gcaaaaatta	taaccctgtc	tgaagtgctt	ctactaaatq	tatqcaqaqa	attataaatq	21120
gggaaagtat	aggtttctat	acctcattga	agtggtaaaa	tgacaacact	gtgaaaagtt	21180
acatacacac	acacacgtaa	gtatatataa	atatatgtgt	gtatatgtgt	gtgtatatat	21240
	ataatgtaat					21300
					tctacaggaa ·	21360
	aaagagaaaa					21420
	ttaagcccta					21480
tcaattaaaa	gacagagata	gcagagttaa	tttaaaaaca	tagctataag	aaacctgctt	.21540
tgggctgagt	gcagtgactc	acacttgtaa	tcccagcact	tcgggaggcc	aaggcgggtg	21600
gatcacctga	ggtcaggagt	tccagaccag	cctggacaac	atggtaatac	cccatctcta	21660
ctaaaaatac	aaaaaaatta	gccaggcatg	gtggcacacg	cctgtagtcc	caactactca	21720
ggaggctgcg	acacaagaac	tgcttgaacc	cgggcagcag	aggtagcagt	gggccaagat	21780
	cagcctgaac					21840
aacctgcttt	aaatatacca	acatatgttg	gttgaaatta	aaagaataaa	atatatcatg	21900
aaaacattaa	tcaaaagaaa	ggagtggcta	tattaataac	ataaaataga	cttcagagaa	21960
aagaaaattt	caagagacag	gaataaaagg	atcaagaaaa	gatcctgaaa	gaaaagcagg	22020
caaatcaatc	attctgcttg	gagattcaac	accctctctt	aacaactgat	agaacaacta	22080
	tcagcatgga					22140
	ggaacactct					22200
	ccttagaccc					22260
aggcttggat	ggacagtgga	agagctgcat	ggggagggag	aaggtgacag	ttaaagagtg	22320
taggatttct	ttttgggata	atgaaaatgt	tccaaaattg	attgtggtga	tgttggcgca	22380
actctacaaa	tataaaaaag	gccattgaat	tgtacgtttt	aagtgggtga	aacatatggt	22440
	tatctaacgc					22500
cagagtgtgc	tctactggaa	tcaaactaga	aagaggtaac	tggaggataa	cgagaaaagc	22560
ctccaaatac	ttgaaaactg	gacagcacat	ttctaaaatc	atccgtgggt	caaagatatt	22620
	attcattttt					22680
	aatgaatatg					22740
ggaggccgag	gctggtggat	cacaagatca	ggagttcgag	accagcctgg	ccaagatggt	22800
	ctcaactaaa					22860
ggtcccagct	acttgggagg	ctgaggtagg	agaatcgctt	gaacacaggc	agcagaggtt	22920
	aagattgtgc					22980
aaaaaaaaa	aaaaagaata	tcaaaatttg	tgggacatag	ttaaagcaat	gctgagaggg	23040
aaatttataa	cactaaatgt	ttacattaga	aaagagaaaa	agtttcaaat	caatagtctc	23100

-18 of 185-

cactcccatc tcaagaacac agaagatgaa gagcaaaata aacccaaagc aagcaaaaga 23160 aagaaaatat aaaaataaat cagtaaaatt gaaaacagaa acacaataaa gaaaatcagt 23220 gaaacaaagt actgattctt cgaaagatta ataaaattga caaacctcta gcaaggctaa 23280 caaacaaaaa agaaagaaga cacggattac cagttattag aatgaaagca taattagaaa 23340 caactctaca cattataaat ttgacaatgt agatgaaatg gactaattac tgaaaaaaca 23400 caaattacca caactcaccc aatatgaaat agataattgg gatagcctga taactactga gaaaattgaa tttgtaattt taacactctt aaaacagaaa cattaaactt aatattttat 23460 23520 aaatattaga taaggtaatt ataccettce ttaacaaata aaaacgacaa attattttge 23580 agctaaagag atgtatgtac tgtgaaaaat atcttcagaa aaatagaact ttgtttgaag 23640 aataaggatt taaaaaatgt ttttaactct caagaagcaa atatctgggc ccagatggtt 23700 tcactgaaga attctaccaa atgtttaatg aagaattacc accaactcta catagcatct 23760 ttgagaaaac tgaagagaag ggaacatctc ccagttcatt ttatgaagtg ggtgttactc 23820 23880 23940 24000 ctggtggatc acctgaggtc aggagtttga gactagcctg gccaacatgg taaaaccctg 24060 tetetactaa aatacaaaaa ttagecagge agggtggtgg ggaaaataaa aaggaaaaaa aaacaaaaaat aaactgcaga ccaatateet teatgagtat agacacaaaa eteettaaac 24120 24180 teettaacaa aatattagca agtagaagca atatataaaa ataattatac accatgatca 24240 agtgggactt attccagaaa cgcaagtctg gttcaacatt tgaaaacaag gtaacccact atatgaacgt actaaagagg aaaactacat aatcacatca atcaatgcag aaaaaagcat 24300 24360 ttgccaaaat ccaatatcca ttcatgatac tctaataaga aaaataagaa taaaggggaa 24420 attecttgae ttgataaage ttacaaaaga ctacaaaage ttacagetaa cetataetta 24480 atggtgaaaa actaaatgct ttcccctacg atcaggaaca aagcaaggat gttcactctc 24540 attgctctta tttaacatag ccctgaagtt ctaacttgtg caaaacgata agaaagggaa 24600 atgaaagacc tgcagattgg caaagaagaa ataaaactgt tcctgtttgc agatgacatg 24660 attgtctcat agaaaatgta aagcaactag gggtaggggg gcagtggaga cacgctggtc 24720 aaaggatacc aaatttcagt taggaggagt aagttcaaga tacctattgc acaacatggt 24780 aactatactt aatatattgt attettgaaa atactaaaag agtgggtgtt aagegttete 24840 accacaaaaa tgataactat gtgaagtaat gcatacgtta attagcacaa cgtatattac 24900 tccaaaacat catgttgtac atgataaata cacacaattt tatctgtcag tttaaaaaca 24960 catgattttg gccaggcaca gtggctcata cctgtaatcc cagcatttta ggaggctgag 25020 gcgagcagaa aacttgaggt cgggagtttg agaccagaat ggtcaacata gtgaaatccc 25080 gtctccacta ataatacaaa aattagcagg atgtggtggc gtgcacctgt agacccagct acttgggagg ctgaggcacg agaattgctt gaacaaggga ggcagaggtt gcagtgagct 25140 25200 25260 aaagcatgac ttttcttaaa tgcaaagcag ccaagcgcag tggctcatgc ctgtaatccc accactttgg gaggccgagg caggcagatc acaaggtcag gagtttgaga ccagcctgac 25320 25380 caacatggtg aaaccccatc tctactaaaa aatatataaa ttagccaggc atgtgtagtc 25440 tcagctactc aggaggctga ggcaggagaa tcacttgaac ccggaggcag aggttgcagt 25500 gttgagccac cgcactccag cctgggtgag agaacgagac tccgtctcaa aaaaaaaaag 25560 caaaataacc taattttaaa aacactaaaa ctactaagtg aattcagtaa gtctttagga 25620 ttcaggatat atgatgaaca tacaaaaatc aattgagctg gacaaaggag gattgtttta ggtcagtagt ttgaggctgt aatgcacaat gattgtgcct gtgaatagct gctgtgctcc 25680 25740 agcetgagea geataatgag accacatete tatttaaaaa aaaaaaaatt gtatetetat gtactageaa taagcacatg ggtactaaaa ttaaaaacat aataaatact gtttttaatt geetgaaaaa aatgaaatae ttacatataa atetaacaaa atgtgeagga ettgtgtget 25800 25860 25920 gaaaactaca aaacgctgat aaaagaaatc aaagaagact taaatagcgt gaaatatacc 25980 atgettatag gttggaaaac ttaatatagt aaagatgeea attttateea aattattaea 26040 caggataaca ttattactac caaaatccca gaaaaatttt acatagatat agacaagatc 26100 atacaaaaat gtatacggaa atatgcaaag gaactagagt agctaaaaca aatttgaaaa agaaaaataa agtgggaaga atcagtctat ccagtttcaa gacttacata gctacagtaa 26160 26220 tcaagactgt gatattgaca gagggacagc tatagatcaa tgcaaccaaa tagagaacta 26280 agaaagaagc acacacaaat atgcccaaat gatttctgac aaaggtgtta aaacacttca 26340 acgggggaag atatgtctct cattaaaggg tgtagagtca ttgcacatct ataggcaaaa 26400 agatgaacct gaacctcaca ccctacagaa aaattaactc aaaatgactc aaggactaaa 26460 cataagatat acatctataa aacatttaga aaaaggccac gcacggtggc tcacgctcgt aatcccagca ctttgggagg ccaaggcagg tggatcacct aaggtcagga gtttgagacc 26520 26580 agcoggatca acatggagaa gocccatoto tactaaaaat acaaaattag otggacgtgg 26640 tggcacatgc ctgtaatccc agctacttgg gaggctgagg catgagaatc gcttgaaccc ggggggcaga ggttgcggtg agccaagatc acaccattgc actccagcct gggcaacaag 26700 26760 agcaaaactc caactcaaaa aaaaaaaaaa aaaggaaaaa tagaaaatct ttgggatgta 26820 aggegaggta aagaattett acaettgatg ccaaactaag atetataagg ccagtegtgg 26880

-19 of 185-

ctctattatt	croraaticc	agcachttgg	tcaactagat	gaaaggtata	taggaattea	26940
	ctttcaactt	ttctctatacct	ttgacatttt	tttagtaaaa	aattaaaaaa	27000
angractare	ccccaactc	agagatataa	tagacacccc	ttagtaaaa	aaccggggga	
	gcagtggctc					27060
	tcaggagttc					27120
aaaaatataa	aaaattagcc	gggtgtcatg	gtgcatgcct	gtaatcccag	ctactgagga	27180
	ggagaatcac					27240
gccactgcac	tccagccttg	ggtgacagag	cgagactccg	tctcaaaaga	aaaaaaaaa	27300
aaagaatatc	aaacgcttac	tttagaaact	atttaaagga	gccagaattt	aattgtatta	27360
gtatttagag	caatttttat	gctccatggc	attgttaaat	agagcaacca	gctaacaatt	27420
agtggagttc	aacagctgtt	aaatttgcta	actgtttagg	aagagagccc	tatcaatatc	27480
	gaggctgaca					27540
	accetgttag					27600
	gaaatttgtt					27660
	tggcatatcc					27720
	ttagttccca					27780
tetetegett	cctctctcac	catgtgatct	cactoottcc	ccttcccttt	atocaatoao	27840
	ctgaagccct					27900
	tgagcccaat					27960
						28020
ccccacagea	agacaaatga	accaagacag	ggggaaatta	acticatiaa	aacaacccac	
	aacaaataag					28080
cccacaatac	agtatctgaa	tastasasas	cccaaccaaa	aaatatatat	atacaggeeg	28140
	cttatgtctg					28200
	agttcgagac					28260
	agccaggcat					28320
	cacttgaacc					28380
	tgggcaacaa					28440
	tgtgtgtgtg					28500
tatacagaca	cacatatata	tatgaagcat	gaaaagaaac	aaggaagtat	gaaccatact	28560
ttctgtggtt	atgataggat	ggggtatcac	gggggaagta	gacaagggaa	actgcaagtg	28620
agagcaaaca	gttatcagat	ttaacagaaa	aagactttgg	agtaaccatt	ataaatatgt	28680
	aaagaaaagc					28740
	gaatatcaat					28800
cggagttgaa	aggtagaata	actaaaattt	aaaattcact	agagaaggtt	caacactata	28860
tttgaactgg	cagaagaaaa	atttagtgag	acaaatatac	ttcaatagac	attattcaaa	28920
tgaaaaataa	aaagaaaaaa	gaatgaagaa	acaaatatac aaataaacag	ttcaatagac aatctcagca	attattcaaa aaatgtggca	
tgaaaaataa	cagaagaaaa aaagaaaaaa cacattaaca	gaatgaagaa	acaaatatac aaataaacag	ttcaatagac aatctcagca	attattcaaa aaatgtggca	28920
tgaaaaataa caccattaat agaaaaaata	aaagaaaaaa cacattaaca ttcaaatgat	gaatgaagaa tatgcatact ggccagtaac	acaaatatac aaataaacag gagagtaccg ttcctagatt	ttcaatagac aatctcagca gaagcagatg tttgttttaa	attattcaaa aaatgtggca agaaagagga agcaataacc	28920 28980
tgaaaaataa caccattaat agaaaaaata tatacaatca	aaagaaaaaa cacattaaca ttcaaatgat agaaactcaa	gaatgaagaa tatgcatact ggccagtaac tgaattccaa	acaaatatac aaataaacag gagagtaccg ttcctagatt gtaggataaa	ttcaatagac aatctcagca gaagcagatg tttgttttaa tacaaaaaga	attattcaaa aaatgtggca agaaagagga agcaataacc accacaaaca	28920 28980 29040
tgaaaaataa caccattaat agaaaaaata tatacaatca gatacaccat	aaagaaaaaa cacattaaca ttcaaatgat agaaactcaa ggtaaaaaatg	gaatgaagaa tatgcatact ggccagtaac tgaattccaa ctgtaagtca	acaaatatac aaataaacag gagagtaccg ttcctagatt gtaggataaa aaaacagaga	ttcaatagac aatctcagca gaagcagatg tttgttttaa tacaaaaaga aaatattgaa	attattcaaa aaatgtggca agaaagagga agcaataacc accacaaaca agcagctaga	28920 28980 29040 29100
tgaaaaataa caccattaat agaaaaaata tatacaatca gatacaccat	aaagaaaaaa cacattaaca ttcaaatgat agaaactcaa ggtaaaaaatg	gaatgaagaa tatgcatact ggccagtaac tgaattccaa ctgtaagtca	acaaatatac aaataaacag gagagtaccg ttcctagatt gtaggataaa aaaacagaga	ttcaatagac aatctcagca gaagcagatg tttgttttaa tacaaaaaga aaatattgaa	attattcaaa aaatgtggca agaaagagga agcaataacc accacaaaca agcagctaga	28920 28980 29040 29100 29160
tgaaaaataa caccattaat agaaaaaata tatacaatca gatacaccat ggaaaactta	aaagaaaaaa cacattaaca ttcaaatgat agaaactcaa ggtaaaaatg taagagaacc	gaatgaagaa tatgcatact ggccagtaac tgaattccaa ctgtaagtca tcacttacaa	acaaatatac aaataaacag gagagtaccg ttcctagatt gtaggataa aaaacagaga aagaacatca	ticaatagac aatctcagca gaagcagatg tttgttttaa tacaaaaaga aaatattgaa cttataaaag	attattcaaa aaatgtggca agaaagagga agcaataacc accacaaca agcagctaga aaccacaata	28920 28980 29040 29100 29160 29220
tgaaaaataa caccattaat agaaaaaata tatacaatca gatacaccat ggaaaactta atagaaacag	aaagaaaaaa cacattaaca ttcaaatgat agaaactcaa ggtaaaaatg taagagaacc ttgacctctc	gaatgaagaa tatgcatact ggccagtaac tgaattccaa ctgtaagtca tcacttacaa atcagaaaca	acaaatatac aaataaacag gagagtaccg ttcctagatt gtaggataaa aaaacagaga aagaacatca atgaatgata	ticaatagac aatctcagca gaagcagatg titgtittaa tacaaaaaga aaatattgaa cttataaaag acatatttga	attattcaaa aaatgtggca agaaagagga agcaataacc accacaaca agcagctaga aaccacaata agtgctcaaa	28920 28980 29040 29100 29160 29220 29280
tgaaaaataa caccattaat agaaaaaata tatacaatca gatacaccat ggaaaactta atagaaacag gaaaaaaaa	aaagaaaaaa cacattaaca ttcaaatgat agaaactcaa ggtaaaaatg taagagaacc ttgacctctc aaagattcct	gaatgaagaa tatgcatact ggccagtaac tgaattccaa ctgtaagtca tcacttacaa atcagaaaca atatacgaca	acaaatatac aaataaacag gagagtaccg ttcctagatt gtaggataaa aaaacagaga aagaacatca atgaatgata aagctgtctt	ticaatagac aatctcagca gaagcagatg tttgttttaa tacaaaaaga aaatattgaa cttataaaag acatatttga tcaaaaatat	attattcaaa aaatgtggca agaaagagga agcaataacc accacaaca agcagctaga aaccacaata agtgctcaaa acatccaaaa	28920 28980 29040 29100 29160 29220 29280 29340
tgaaaaataa caccattaat agaaaaaata tatacaatca gatacaccat ggaaaactta atagaaacag gaaaaaaaat ggattgaaac	aaagaaaaaa cacattaaca ttcaaatgat agaaactcaa ggtaaaaatg taagagaacc ttgacctctc aaagattcct cagggtcttg	gaatgaagaa tatgcatact ggccagtaac tgaattccaa ctgtaagtca tcacttacaa atcagaaaca atatacgaca aagagttatt	acaaatatac aaataaacag gagagtaccg ttcctagatt gtaggataaa aaaacagaga aagaacatca atgaatgata aagctgtctt tgtacatcca	ticaatagac aatctcagca gaagcagatg tttgttttaa tacaaaaaga aaatattgaa cttataaaag acatatttga tcaaaaatat tgttcatagc	attattcaaa aaatgtggca agaaagagga agcaataacc accacaaaca agcagctaga aaccacaata agtgctcaaa acatccaaaa agcattattc	28920 28980 29040 29100 29160 29220 29280 29340 29400
tgaaaaataa caccattaat agaaaaaata tatacaatca gatacaccat ggaaaacta gaaaaaaaa ggaatgaaac acaatagca	aaagaaaaaa cacattaaca ttcaaatgat agaaactcaa ggtaaaaatg taagagaacc ttgacctctc aaagattcct cagggtcttg aaaggtagaa	gaatgaagaa tatgcatact ggccagtaac tgaattccaa ctgtaagtca tcacttacaa atcagaaaca atatacgaca aagagttatt gcaacccaag	acaaatatac aaataaacag gagagtaccg ttcctagatt gtaggataaa aaacagaga aagaacatca atgaatgata aagctgtctt tgtacatcca ggtccatcga	ticaatagac aatctcagca gaagcagatg tttgttttaa tacaaaaaga aaatattgaa cttataaaag acatatttga tcaaaaatat tgttcatagc caaataaata	attattcaaa aaatgtggca agaaagagga agcaataacc accacaaaca agcagctaga aaccacaata agtgctcaaa acatccaaaa agcattattc aaatgtggta	28920 28980 29040 29100 29160 29220 29280 29340 29460
tgaaaaataa caccattaat agaaaaaata tatacaatca gatacaccat ggaaaactaa gaaaaaaaat ggattgaaac acaatagcca tatgtataca	aaagaaaaaa cacattaaca ttcaaatgat agaaactcaa ggtaaaaatg taagagacc ttgacctctc aaagattcct cagggtcttg aaaggtagaa caatggaatt	gaatgaagaa tatgcatact ggccagtaac tgaattccaa ctgtaagtca tcacttacaa atcagaaaca atatacgaca aagagttatt gcaacccaag tattcagtat	acaaatatac aaataaacag gagagtaacag ttcctagatt gtaggataaa aaaacagaga aagaacatca atgaatgata aagctgtctt tgtacatcca ggtccatcga taaaaaggaa	ticaatagac aatctcagca gaagcagatg ttgttttaa tacaaaaaga aaatattgaa cttataaaag acatatttga tcaaaatat tgttcaatagc caaataaata tgaaattctg	attattcaaa aaatgtggca agaaagagga agcaataacc agcagctaga aaccacaata agtgctcaaa acatccaaaa agcattattc aaatgtggta acacatgcta	28920 28980 29040 29100 29160 29220 29280 29340 29460 29460 29520 29580
tgaaaaataa caccattaat agaaaaaata gatacaaccat ggaaaactta atagaaacag gaaaaaaaat ggattgaaac acaatagcaa tatgtataca caacatggct	aaagaaaaaa cacattaaca ttcaaatgat agaaactcaa ggtaaaaatg taagagaacc ttgacctctc aaagattcct cagggtcttg aaaggtagaa aaatggaatt aaaccttgag	gaatgaagaa tatgcatact ggcagtaac tgaattcaa ctgtaagtca tcacttacaa atcagaaaca atatacgaca aagagttatt gcaacccaag tattcagtat aacactatgc	acaaatatac aaataaacag gagagtaccg ttcctagatt gtaggataa aaaacagaga aagaacatca atgaatgata aagctgtctt tgtacatcca ggtccatcga taaaaaggaa taagtgaaat	ticaatagac aatctcagca gaagcagatg titgttitaa tacaaaaaga aaatattgaa cttataaaag acatatttga tcaaaaatat tgttcatagc caaataaata tgaaattctg aagccagcca	attattcaaa aaatgtggca agaaagagga agcaataaca agcagctaga aaccacaata agtgctcaaa acatccaaaa agcattattc aaatgtggta acacatgcta caaaaggaca	28920 28980 29040 29100 29160 29220 29280 29340 29460 29520 29580 29640
tgaaaaataa caccattaat agaaaaaata tatacaaccat ggaaaactta atagaaacag gaaaaaaaat ggattgaaac acaatagca tatgtataca caacatgct aataccatat	aaagaaaaaa cacattaaca ttcaaatgat agaaactcaa ggtaaaaatg taagagaacc ttgacctctc aaagattcct cagggtcttg aaaggtagaa caatggaatt aaaccttgag tacttcactt	gaatgaagaa tatgcatact ggccagtaac tgaattccaa tcacttacaa atcagaaaca atatacgaca aagagttatt gcaacccaag tattcagtat aacactatgc gtatgaaata	acaaatatac aaataaacag gagagtaccg ttcctagatt gtaggataa aaaacagaga aagaacatca atgaatgata aagctgtctt tgtacatcca ggtccatcga taaaaaggaa taagtgaaat cctagggtag	ticaatagac aatctcagca gaagcagatg titgittaa tacaaaaaga aaatattga cttataaaag acatatttga tcaaaaatat tgttcatagc caaataaatat tgaaattctg aagccagcca tcaaattcag	attattcaaa aaatgtggca agaaagagga agcaataaca agcagctaga aaccacaata agtgctcaaa acatccaaaa agcattattc aaatgtggta acacatgcta caaaaggaca agatagaaag	28920 28980 29040 29100 29160 29220 29280 29340 29460 29520 29580 29580 29700
tgaaaaataa caccattaat agaaaaaata tatacaatca ggaaaactta atagaaacag gaaaaaaaat ggattgaaac acaatagcca tatgtataca caacatggct aataccatat taaaacagtg	aaagaaaaaa cacattaaca ttcaaatgat agaaactcaa ggtaaaaatg taagagaacc ttgacctctc aaagattcct cagggtcttg aaaggtagaa caatggaatt aaaccttgag tacttcactt gttgccaagg	gaatgaagaa tatgcatact ggcagtaac tgaattccaa ctgtaagtca tcacttacaa atcagaaaca atatacgaca aagagttatt gcaacccaag tattcagtat aacactatgc gtatgaaata gctgagggag	acaaatatac aaataaacag gagagtaccg ttcctagatt gtaggataaa aaaacagaga aagaacatca atgaatgata aagctgtctt tgtacatcca ggtccatcga taaaaaggaa taaaaggaa cctagggtaag ggagtaacgt	ticaatagac aatctcagca gaagcagatg titgititaa tacaaaaga acatatitga tcaaaaatat tgttcatagc caaataaata tgaaattctg aagccagca tcaaattcag ggagttattg	attattcaaa aaatgtggca agaaagagga agcaataaca agcagctaga aaccacaata agtgctcaaa acatccaaaa agcattattc aaatgtggta acacatgcta acaacatgcta caaaaggaca agatagaaag ttgaatggt	28920 28980 29040 29100 29160 29220 29280 29340 29460 29520 29580 29640 29700 29760
tgaaaaataa caccattaat agaaaaaata gaatacaccat atagaaaacag gaaaaaaaaa ggattgaaac acaatagcca tatgtataca caacatggt aataccatat taaaaacagtg acagaatttc	aaagaaaaaa cacattaaca ttcaaatgat agaaactcaa ggtaaaaaatg taagagacc ttgacctctc aaagattcct cagggtcttg aaaggtagaa caatggaatt aaaccttgag tacttcactt gttgccaagg agttttgcaa	gaatgaagaa tatgcatact ggccagtaac tgaattccaa ctgtaagtca atcacttacaa atcagaaaca atatacgaca aagagttatt gcaacccaag tattcagtat aacactatgc gtatgaaggaag gataaaaaga	acaaatatac aaataaacag gagagtaccg ttcctagatt gtaggataaa aagaacatca atgaatgata aagctgtctt tgtacatcca ggtccatcga taaaaaggaa taagtgaaat cctagggtaag ggagtaacgt gttcttggaga	ticaatagac aatctcagca gaagcagatg titgitttaa tacaaaaaga acatattga tcaaaaatat tgttcatagc caaataaata tgaaattctg aagccagcca tcaaattcag ggagttaatg cagatggtgg	attattcaaa aaatgtggca agaaagagga agcaataacc accacaaca agcagctaga aaccacaata agtgctcaaa acatccaaaa agcattattc aaatgtggta acaacatgcta caaaaggaca agatagaaag ttgaatgggt tgagggtggt	28920 28980 29040 29100 29160 29220 29280 29340 29460 29580 29580 29760 29760 29760
tgaaaaataa caccattaat agaaaaaata tatacaatca gaaaaaacta atagaataga	aaagaaaaaa cacattaaca ttcaaatgat agaaactcaa ggtaaaaatg taaagagacc ttgacctctc aaagattcct cagggtcttg aaaggtagaa caatggaatt aaaccttgag tacttcactt gttgccaagg agttttgcaa aaatatactt	gaatgaagaa tatgcatact ggccagtaac tgaattccaa ctgtaagtca atcactacaa atcagaaaca atatacgaca aagagttatt gcaacccaag tattcagtat aacactatgc gtatgaagaa gctgagggag gataaaaaga tatactactg	acaaatatac aaataaacag gagagtaccg ttcctagatt gtaggataaa aagaacatca atgaatgata aagctgtctt tgtacatcca ggtccatcga taaaaaggaa tcctagggtag ggagtaacgt ggtcttggaga aacagtatac	ticaatagac aatctcagca gaagcagatg tttgttttaa tacaaaaaga acatattga tcaaaaatat tgttcatagc caaataaata tgaaattctg aagccagcca tcaaattcag ggagttattg cagatggtgg ttaaaaatga	attattcaaa aaatgtggca agaaagagga agcaataacc accacaaca agcagctaga aaccacaata agtgctcaaa acatccaaaa agcattattc aaatgtggta acacatgcta caaaaggaca agatagaca agatagaca tgaatgggt tgaagggtggt ttaacatggt	28920 28980 29040 29160 29160 29220 29280 29340 29460 29520 29580 29640 29760 29760 29820 29880
tgaaaaataa caccattaat agaaaaaata gaaaaaaaaa at ggaaaaacta acaatagca tatgtataca caacatgtataca caacatgtataca taaaaccatat taaaaccatat taaaaccatat acaacaatac gaaacccgt	aaagaaaaaa cacattaaca ttcaaatgat agaaaccaaa ggtaaaaaacc ttgacctctc aaagattcct cagggtcttg aaaggtagaa caatggaatt aaaccttgag tacttcactt gttgccaagg agttttgcaa aaatatactt ctctactaaa	gaatgaagaa tatgcatact ggccagtaac tgaattccaa ctgtaagtca atcagaaaca atatacgaca aagagttatt gcaacccaag tattcagtat aacactatgc gtatgaggaa gataaaaaga tatactactg aatacaaaa	acaaatatac aaataaacag gagagtaccg ttcctagatt gtaggataaa aagaacatca atgaatgata aagctgtctt tgtacatcca ggtccatcga taaaaaggaa taagtgaaat cctagggtaaag ggagtaacgt gttctggaga aacagtatac aattagctgg	ticaatagac aatctcagca gaagcagatg tttgttttaa tacaaaaaga acatattga tcaaaaatat tgttcatagc caaataaata tgaaattctg aagccagcca tcaaattcag ggagttattg cagatggtgg ttaaaaatga gtgtggtggc	attattcaaa aaatgtggca agaaagagga agcaataacc accacaaca agcagctaga aaccacaata agtgctcaaa acatccaaaa agcattattc aaatgtggta acaacatgcta caaaaggaca agatagaaag ttgaatgggt ttgagggtggt ttaacatggt	28920 28980 29040 29160 29160 29220 29280 29340 29460 29520 29580 29760 29760 29760 29880 29880 29940
tgaaaaataa caccattaat agaaaaaata gatacaccat ggaaaactta atagaaaaaaa ggaaaaaaaa ggattgaaac acaatagca caacatggct aataccatat taaaacagtg acagaattc acaacaccgt aatacccagt aatacccagt	aaagaaaaaa cacattaaca ttcaaatgat agaaactcaa ggtaaaaatg taagagaacc ttgacctctc aaagattcct caaggtcttg aaaggtagaa caatggaatt aaaccttgag tacttcactt gttgccaagg agtttgcaa aaatatactt cttactaaaa acttgggagg	gaatgaagaa tatgcatact ggccagtaac tgaattcaa tcacttacaa atcagaaaca atatacgaca aagagttatt gcaacccaag tattcagtat aacactatgc gtatgaaata gctgagggag gataaaaaga tatactactg aatactactg aatacaaaaa ctgaggcagc	acaaatatac aaataaacag gagagtaccg ttcctagatt gtaggataaa aaaacagaga aagaacatca atgaatgata aagctgtctt tgtacatcca tgacaatca taaaaaggaa taagtgaaat cctagggtag ggagtaacgt gttcttggaga atcagtataa aacagtatac aattagctgg agaattgctt	ticaatagac aatctcagca gaagcagatg ttgttttaa tacaaaaaga aaatattgaa cttataaaag acatatttga tcaaaaatat tgttcatagc caaataaata tgaaattctg aagccagcca tcaaattcag ggagttattg cagatggtgg ttaaaaatga ggtgtggtggc gaaaccagaa	attattcaaa aaatgtggca agaaagagga agcaataacc accacaaca agcagctaga aaccacaata agtgctcaaa agcattattc aaatgtggta accactgcta caaaaggaca agatagaaag ttgaatgggt ttgagggtggt ttaacatggt gggcacctgt gggcagggtt	28920 28980 29040 29160 29160 29220 29280 29340 29460 29520 29580 29760 29760 29760 297820 29880 29940 30000
tgaaaaataa caccattaat agaaaaaata ggaaaactta atagaaaacag gaaaaaaaaa ggattgaaac acaatagca tatgtataca caacatggct aataccatat taaaacagtg acagaattc agaacaccgt aatcccagct gcagtgagct	aaagaaaaaa cacattaaca ttcaaatgat agaaactcaa ggtaaaaatg taagagaacc ttgacctctc aaagattcct caaggtcttg aaaggtagaa caatggaatt aaaccttgag tactcactt gttgccaagg agtttgcaa aatatactt cttactaaa acttgggagg gagattgcgc	gaatgaagaa tatgcatact ggcagtaact caattacaa atcagaaaca atatacgaca aaggttatt gcaacccaag tattcagtataacactatgc gtatgaaata gctgagggag gataaaaaag tatactactg aatacaaaaa ctgaggcagc caccgcact	acaaatatac aaataaacag gagagtaccg ttcctagatt gtaggataaa aaaacagaga aagaacatca atgaatgata aagctgtctt tgtacatcca ggtccatcga taaaaaggaa taagtgaaat cctagggtag ggagtaacgt gttctggaga aacagtatac aattagctgg agaattgctt tagcctggc	ticaatagac aatctcagca gaagcagatg ttgttttaa tacaaaaaga aaatattgaa cttataaaag acatatttga tcaaaaata tgtcatagc caaataaata tgaaattctg aagccagcca tcaaattcag ggagttattg cagatggtgg ttaaaaatga ggttggtggc gaaaccagaa aataagaca	attattcaaa aaatgtggca agaaagagga agcaataacc accacaaca agcagctaga aaccacaata agtgctcaaa acatccaaaa agcattattc aaatgtggta accatgcta caaaaggaca agatagaaag ttgaatggt ttgagggtggt ttaacatggt gggcacctgt gggcacctgt ggcggaggtt aaactccgtc	28920 28980 29040 29100 29160 29220 29280 29340 29460 29520 29580 29760 29760 29820 29820 29940 30000 30060
tgaaaaataa caccattaat agaaaaaataa gaaaaactta atagaaaacatggaaaacaa cacaatagcaa tatgaataca caacaatagca taaaacaatag acagaatttc aaaacaatac gaaaccccgt aatacccagct gaaaccccgt gaagtgagct tcaaaaaaata	aaagaaaaaa cacattaaca ttcaaatgat agaaactcaa ggtaaaaatg taagagaacc ttgacctctc aaagattcct cagggtcttg aaatggaat caatggaat aaaccttgag tacttcactt gttgccaagg agttttgcaa aatatactt cttactaaa acttgggagg gagattgcgc aaaaaaaaaa	gaatgaagaa tatgcatact ggccagtaac tgaattccaa atcagtaaaca atcagaaaca atatacgaca aagagttatt gcaacccaag tattcagtat aacactatgc gtatgaaata gctgagggag gataaaaaga tatactactg aatacaaaaa ctgaggcagc caccgcactc aaaattaa	acaaatatac aaataaacag gagagtaccg ttcctagatt gtaggataa aaaacagaga aagaacatca atgaatgata aagctgtctt tgtacatcca ggtccatcga taaaaaggaa taagtgaaat cctagggtag ggagtaacgt gttctggaga aacagtatac aattagctg agaattgctt tagcctcggcaat	ticaatagac aatctcagca gaagcagatg titgttitaa tacaaaaaga aaatattga cttataaaag acatatttga tcaaaaaata tgttcatagc caaataaata tgaagccagcca tcaaattcag ggagttattg cagatggtgg ttaaaaatga gtgtggtggc gaaccaggaa ataagagca cagaaggcca cagaaggcca	attattcaaa aaatgtggca agaaagagga agcaataaca agcagctaga aaccacaata agtgctcaaa acatccaaaa agcattattc aaatgtggta acacatgcta caaatgtgta acacatgcta caaaaggaca agatagaaag ttgaatgggt ttgagggtggt ttaacatggt ggcacctgt ggcggaggtt aaactccgtc ggcacggtgg	28920 28980 29040 29100 29160 29220 29280 29340 29460 29580 29580 29760 29760 29880 29940 30000 30120
tgaaaaataa caccattaat agaaaaaataa gatacaccat atagaaaacata ggaaaaaaaa ggattgaaac acaataggct aataccatat taaaacagtg acagaatttc acaacaatac gaaaccccgt aatacccagct gcagtgagct tcaaaaaata ctcacaccta	aaagaaaaaa cacattaaca ttcaaatgat agaaactcaa ggtaaaaatg taagagaacc ttgacctctc aaagattcct cagggtcttg aaaggtagaa caatggaatt aaaccttgag tacttcactt gttgccaagg agttttgcaa aastatactt ctctactaaa acttgggagg gagattgcgc aaaaataaaa taatgccagc	gaatgaagaa tatgcatact ggccagtaac tgaattccaa ctgtaagtca atcactacaa atcagaaaca atatacgaca aagagttatt gcaacccaag tattcagtat aacactatgc gtatgaaata gctgagggag gataaaaaga tatactactg aatacaaca ctgaggcagc caccgcactc aaaatttaaa actttgggag	acaaatatac aaataacag gagagtaccg ttcctagatt gtaggataa aaaacagaga aagaacatca atgaatgata aagctgtctt tgtacatcca ggtccatcga taaaaaggaa taaaagggaa tcctagggtag ggagtaacgt gttctggaga aacagtatac aattagttgt gtacttggaga gagtatacgt gttctggaga aacagtatac aattagttgt tgaattaggt agaattagctgg agaattaag gcgaggcag	ticaatagac aatctcagca gaagcagatg titgittaa tacaaaaaga acatatiga tcaaaaatat tgttcatagc caaataatat tgaaattcga aagccagca tcaaattcag ggagttatig cagatggtgg ttaaaaatga gtgtggtggc gaaaccagaa acaggaggca caggaggca gcagcagca gcagcagca	attattcaaa aaatgtggca agaaagagga agcaataaca agcagctaga aaccacaata agtgctcaaa agcattattc aaatgtggta acacatgcta caaaaggaca agatagaaag ttgaatggt tgagggtggt ttaacatggt ggcacctgt ggcggaggtt aaactccgtc ggcacggtgg gagaccagga	28920 28980 29040 29100 29160 29220 29280 29340 29460 29520 29580 29640 29760 29760 29780 29880 29940 30060 30120 30180
tgaaaaataa caccattaat agaaaaaata tatacaatca gatacaccat ggaaaacta atagaaacag gaaaaaaaat ggattgaaac acaatagcca tatgtataca cacatggct aataccatat taaaacagtg acagaatttc acaacaatac gaaaccccgt aatcccagct gcagtagaact cacaacata gcagtagaact actcacacta gtttgagacc	aaagaaaaaa cacattaaca ttcaaatgat agaaactcaa ggaaacc ttgacctctc aaagattcct cagggtcttg aaaggtagaa caatggaatt aacttcactt gttgccaagg agttttgcaa aaatatactt ctctactaaa acttgggagg gagattgcga agaatgacag agcctggca	gaatgaagaa tatgcatact ggccagtaac tgaattccaa ctgtaagtca atcacttacaa atcagaaaca atatacgaca aagagttatt gcaacccaag tattcagtat aacactatgc gtatgaaata gctgagggag gataaaaaga tatactactg aatacacaaa ctgaggcagc caccgcacta actttgggaag acatttgggaa acatttgggaag acatggcaaa	acaaatatac aaataacag gagagtaccg ttcctagatt gtaggataaa aagaacatca atgaatgata aagctgtctt tgtacatcca ggtccatcga taaaaggaaa tcctagggtaaag ggagtaacgt gttctggaga aacagtatac aattagctgg agaattgctt tagcctgggc agaattgctt tagcctgggc agcctgtctc	ticaatagac aatctcagca gaagcagatg titgttitaa tacaaaaaga acatatitga tcaaaaatat tgttcatagc caaataaata tgttcatagc caaataaata tgaaattctg aagccagca tcaaattcag ggagttattg cagatggtgg ttaaaaatga gtgtggtggc gaaaccagaa aataagagca caggaggcca gcgatcactt tgctaaaaat	attattcaaa aaatgtggca agaaagagga agcaataacc accacaaaca agcagctaga aaccacaata agtgctcaaa acatccaaaa agcattattc aaatgtggta acaacatgcta caaaaggaca agatagaaag ttgaatggt tgagggtggt ttaacatggt ggcacctgt ggcggaggtt aaactccgtc ggcacggtgg agaacaagaaaatta	28920 28980 29040 29100 29160 29220 29280 29340 29460 29580 29580 29760 29760 29880 29760 29880 30000 30060 30120 30180 30240
tgaaaaataa caccattaat agaaaaaata tatacaatca gatacaccat ggaaaacta atagaaacag gaaaaaaaat ggattgaaac acaatagca tatgtataca caacatggt aataccatat taaaacagtg acagaatttc acaacaatac gaaaccccgt aatcccagct gcagtgagct tcaaaaaata gtttgagacc gctaggcatg	aaagaaaaaa cacattaaca ttcaaatgat agaaaccaaa ggtaaaaaag gtaaagaaacc ttgacctctc aaagattcct cagggtcttg aaaggtagaa caatggaatt aaaccttaag tacttcactt gtgccaagg agtttgcaa aatatactt ctctactaaa acttgggagg gagattgcgc aaaaataaaa taatgccagc agcctggcca gtggcatata	gaatgaagaa tatgcatact ggccagtaac tgaattccaa ctgtaagtca atcagaaaca atatacgaca aagagttatt gcaacccaag tattcagtat aacactatgc gtatgaggaag gataaaaaga tatactactg aatacaaaaa ctgaggcagc caccgcactc aaaatttaaa actttgggag acatggcaaa cttataatcc	acaaatatac aaataaacag gagagtaccg ttcctagatt gtaggataaa aaaacagaga aagaacatca atgaatgata aagcttctt tgtacatcca tgacatcga taaaaaggaa taagtgaaat cctagggtag ggagtaacgt gttctggaga aacagtatac aattagctgg agaattgctt tagcctgggc agaattaag gccgaggcag gccgaggcag acctttcc	ticaatagac aatctcagca gaagcagatg ttgttttaa tacaaaaaga aaatattgaa cttataaaag acatatttga tcaaaatat tgtcaaaatat tgaaattctg aagccagcca tcaaattcag gaagttattg cagatggtgg cagatggtggc gaaaccagaa ataagagca caggaggcca gcgatcactt tgctaaaaat tgctaaaatgagca gtgtggtggc gaaaccagaa ataagagca tgcagatgagca gcgatcactt	attattcaaa aaatgtggca agaaagagga agcaataacc agcagctaga aaccacaata agtgctcaaa agcattattc aaatgtggta acaatggta acaatggta acaatggta caaaaggaca agatagaaag ttgaatggt ttgagggtggt ttaacatggt ggcacctgt ggcggaggtt aaactccgtc ggcacggtgg gagaccagga acaaaaatta acacgagaat	28920 28980 29040 29100 29160 29220 29280 29340 29460 29520 29580 29760 29760 29760 29880 29940 30000 30120 30180 30240 30300
tgaaaaataa caccattaat agaaaaaata tatacaatca gatacaccat ggaaaactta atagaaaaaaa tggattgaaac acaatagcaa tatgtataca caacatggct aataccatat taaaacagtg acagaattc acagaattc gaagtgagct tcaaaaaata ctcacaccta gttgagac gcagtgagct tcaaaaaata ctcacaccta gtttgagac gtctagagcac gtctggagcac gtgcttgaac	aaagaaaaaa cacattaaca ttcaaatgat agaaactcaa ggtaaaaatg taagagaacc ttgacctctc aaaggttcttg aaaggtagaa caatggaatt aaaccttgag tacttcactt gttgccaagg agtttgcaa aatatactt gttgcgagg gagattgcgc aaaaataaaa taatgcagc agcctggcca gtggcatata caggaggcag	gaatgaagaa tatgcatact ggccagtaac tgaattccaa atcagaaaca atatacgaca atatacgaca aagagttatt gcaacccaag tattcagtaata accactatgc gtatgaaata gctgagggag gataaaaaga tatactactg aatactactg aatactactg aatactactg aatactactg aatactactg aatactacaaaa ctgaggcagc caccgcactc aaaatttaaa actttgggag acatggcaaa cttataatcc agattgcagt	acaaatatac aaataaacag gagagtaccg ttcctagatt gtaggataaa aaaacagaga aagaacatca atgaatgata aagctgtctt tgtacaatcga taaaaaggaa taagtgaaat cctagggtag ggagtagcgt gttcttggaga aacagtataag agaattagctt tagcctgggcag agaattgctt tagcctgggcag accgagtcag gcagtactg gagtactgcg gagtagcag agaattaag gccagtgtct caatgattaag gccaggcag accetgtctc gagtcagat	ticaatagac aatctcagca gaagcagatg tttgttttaa tacaaaaaga aaatattgaa cttataaaag acatatttga tcaaaaatat tgtcatagc caaatacata tgaaattctg aagccagcca tcaaattcag ggagttattg cagatggtgg ttaaaatga gtgtggtggc gaaaccagaa aataagagca caggaggcca caggatgaca tcaaattcag	attattcaaa aaatgtggca agaaagagga agcaataacc accacaaca agcagctaga aaccacaata agtgctcaaa agcattccaaa agcattattc aaatgtggta accatgcta caaaaggaca agatagaaag ttgaatggt ttgagtggt ttaacatgctgt ggcggaggtt aaactccgtc ggcacggtgg gagaccagga acaaaaatta acacgagaat aattccagc	28920 28980 29040 29160 29160 29220 29280 29340 29460 29520 29580 29640 29760 29760 29820 29880 29940 30060 30120 30180 30240 30360
tgaaaaataa caccattaat agaaaaaataa tatacaatca gatacaccat ggaaaactta atagaaaaaaa tggaaaacaa gaatgaaac acaataggca aataccatat taaaacagtg acagaaatttc acaacataggct aataccagt acacacagct gcagtgagct tcaaaaaata ctcacaccta gtttgaacc gcaggcatg tcatagacc gcaggcacg tgcttgaacc tggggggacag	aaagaaaaaa cacattaaca ttcaaatgat agaaactcaa ggtaaaaatg taagagaacc ttgacctctc aaagattcct caaggtcttg aaatggaatt aaaccttgag tacttcactt gttgccaagg agttttgcaa aattactac tactactaaactaggagt gagattgcgc aaaaataaaa taatgccagc agcctggcca gtggcatata acggaggcag agcaagatc	gaatgaagaa tatgcatact ggccagtaac tgaattcaaa atcagaaaca atatacgaca atatacgaca atatacgaca atatacgaca atatacgaca acggttatt gcaacccaag tattcagtat acactatgc gtatgaaata gctgagggag gataaaaaga tatactacta actgaggcaac cacagcactc aaaatttaaa acttgggag actataaac actgaggcaac cacaggcactc aaaatttaaa acttgggag actataaac agattgcaga tgtctcgaaa	acaaatatac aaataaacag gagagtaaccg ttcctagatt gtaggataaa aaaacagaga aagaacatca atgaatgata tgtacatcca tgtacatcca tagactgtctt tgtacatcca taaaaggaaa taagtgaaat cctagggtag ggagtaacgt gttctgagaga aacagtatag ggagtatagg agaattagctt tagcctggga acagtatag gccgaggcag acctgtctc aatgatcag agacctgataa cagataacag acagaacag acagaacag acagaacag acagaacag acagaacag acagaacag acagaacag acaacagaacaaaacaaaaacaaaaacaaaaaca	ticaatagac aatctcagca gaagcagatg ttgttttaa tacaaaaaga aaatattgaa cttataaaag acatatttga tcaaaaatat tgttcatagc caaataaata gaaattcag gaagcagcca tcaaattcag ggagttattg cagatggtgg taaaaatag ggagttattg cagatggtgg taaaaacaaga aataagagca caggaggcca gcgatcactt tgctaaaaaa tgagactgag gaaccagaa acaggaggcca gcgatcactt tgctaaaaaa tgagactgag gagatcactt tgctaaaaaa	attattcaaa aaatgtggca agaaagagga agcaataaca agcagctaga aaccacaata agtgctcaaa agcattattc aaatgtggta aacatgcatattc aaatgtggta acatgctacaaa agcattattc acaaaggaca agatagaaag ttgaatggt tgagggtggt ttaacatggt gggcacctgt ggcgaggtt aaactccgtc ggcacggtgg gagaccagga acaaaaatta acacgagaaa acacagagaa acacagagaa acaacaaatta acacgagacc agcaaaacca	28920 28980 29040 29100 29160 29220 29280 29340 29450 29580 29580 29760 29760 29820 29760 29820 29820 29940 30060 30120 30180 30240 30300 30360 30420
tgaaaaataa caccattaat agaaaaaataa tatacaatca gatacaccat ggaaaactta atagaaaaaaa tggaaaaaaaa tggattgaaac acaatagcaa cacatagcta aataccatat taaaacagtg acagaatttc acaacacccgt aatcccagct gcagtgagct tcaaaaaata ctcacaccta gtttgaacc gcaggcatg acttgaacc gcaggcatg acttggaacc gcaggcatg aaaaatat	aaagaaaaaa cacattaaca ttcaaatgat agaaactcaa ggtaaaaatg taagagaacc ttgacctctc aaagattcct caaggtcttg aaatggaatt aaaccttgag tacttcactt gttgccaagg agttttgcaa acttactac acttgggagg gagattgcgc aaaaataaaa taatgccagc agcctggcca gtggcatata acggaggcag agcaagattc agcaggaaa	gaatgaagaa tatgcatact ggccagtaac tgaattcaaa atcagaaaca atatacgaca atatacgaca atatacgaca atatacgaca atatacgaca acgagttatt gcaacccaag tattcagtat accattagc gtatgaaata gctgagggag gataaaaaga tatactacta actgaggcagc caccgcactc aaaatttaaa acttgggag actatgagcaac cactggcaac cactggcaac cactggcaac cactggcaac cactgcagt tgtctcgaaa cgagattgct	acaaatatac aaataaacag gagagtaaccg ttcctagatt gtaggataaa aagaacatca atgaatgata tgtacatcga ttagtctt tgtacatcca taaaaggaa taagtgaaat cctagggtaacgt gttctgagaga aacagtaatag ggagtaacgt gttctggaga aacagtatag agaattagctt tagcctggga acagtatag gccgaggcag acagtatag gccgaggcag acagtatag gccgaggcag acagtactg gagtcgagat aaacaaaaac gctgaggagg	ticaatagac aatctcagca gaagcagatg ttgttttaa tacaaaaaga aaatattgaa cttataaaag acatatttga tcaaaaatat tgttcatagc caaataaata gaagtcagcca tcaaattcag ggagttattg cagatggtgg ttaaaaatga ggagttattg cagatggtgg taaaaacaaga aataagagca caggaggcca gcgatcactt tgctaaaaaat tgagactgag gaaccagaa acaggaggcca gcgatcactt tgctaaaaaa tgagactgag gagatcactt tgctaaaaaa agaacaaaa agaaagatgt	attattcaaa aaatgtggca agaaagagga agcaataaca agcagctaga aaccacaata agtgctcaaa agcattcaaaa agcattattc aaatgtggta acacatgcta caaaaggaca agatagaaag ttgaatggt ttgagggtggt ttaacatggt tgggcacctgt ggcggaggtt aaactccgtc ggcacggtgg gagaccagga acaaaaatta acacgagaaat aattccagcc agcaaaacca gcaggaccaa	28920 28980 29040 29100 29160 29220 29280 29340 29460 29520 29580 29760 29760 29880 29980 29980 30060 30120 30180 30240 30360 30360 30420 30480
tgaaaaataa caccattaat agaaaaaata tatacaatca gatacaccat ggaaaactta atagaaaacag gaaaaaaaat ggattgaaac acaatagcca tatgtataca caacatagcca taataccatat taaaacagtg acagaatttc acaacaatac gaatcccagct gcagtgagct tcaaaaaata gtttgagacc gccaggcaacc gccaggcaacc tggtggacag tgcttgaacac taggtcgaacac tggtggacag tgcttgaacac tgggtggacag tgcttgaacac tgggtggacag tgcttgaacac tgggtcgacag	aaagaaaaaa cacattaaca ttcaaatgat agaaactcaa ggtaaaaatg taagagaacc ttgacctctc aaagattcct cagggtcttg aaatggaat caatggaat caatggaat taaccttgag tacttcactt gttgccaagg agttttgcaa acattggagag agtttgcaa cattgggagg agtttgcgc agtggcagaagattac agcctggcca gtggcatata caggaggcag agcaagattc aagcaggaaa agcacaaaac	gaatgaagaa tatgcatact ggccagtaac tgaattccaa atcactacaa atcagaaaca atatacgaca atatacgaca atatacgaca aagagttatt gcaacccaag tattcagtat accactatgc gtatgaaata gctgagggag gataaaaaga tatactactg aatacaaaaa ctgaggcactc aaaatttaaa actttgggag acatggcaac caccgcactc aaatttaaa actttgggag acatggcagc tatatactac agattccaga tgtctcgaaa ctgaggtcagt tgtctcgaaa cgagattgct ttttcaaaa	acaaatatac aaataacag gagagtaccg ttcctagatt gtaggataa aagaacatca atgaatgata aagacatca atgaatgata aagctgtctt tgtacatcca ggtccatcga taaaaaggaaa taagtgaaat cctagggtag ggagtaacgt gttctggaga aacagtataac gaattagctt tagacttgggca aattagctt tagacttggg agagttaag gccgaggcag accctgtctc cagctacagat aaacaaaaac gctgaggag atgtttaatg	ticaatagac aatctcagca gaagcagatg titgtttaa tacaaaaga aaatattga tcaaaaatat tgttcatagc caaataatat tgttcatagc caaataatctga gaggttattg aagccagca tcaaattcag ggagttattg cagatggtgg ttaaaaatga gtgtggtgg ttaaaaatga gtgtggcg aaacaagaa caggaggcca gcgatcactt tgctaaaaat tgagactgag cgcgccactg aaaacaaaa agaaagatg attaaaatgg	attattcaaa aaatgtggca agaaagagga agcaataaca agcagctaga aaccacaata agtgctcaaa agcattattc aaatgtggta acaatgctagta caaaaggaca agcattagtt gaaaggttggt ttgagggtggt ttaacatggt tgggcacctgt ggcggaggtt agactcgt ggcacggtgg gagaccagga acaaaaatta acacgagaat aattccagcc agcaaaacca gcaggaccaa taaatttat	28920 28980 29040 29100 29160 29220 29280 29340 29460 29520 29580 29760 29760 29760 297820 297880 29940 30060 30120 30180 30120 30360 30340 30340 30340 30340
tgaaaaataa caccattaat agaaaaaata tatacaatca gatacaccat ggaaaactta atagaaaacag gaaaaaaaat ggattgaaac acaatagcca tatgtataca caacatagcca tatgtataca caacaatatc gaaaccccgt acagaatttc acaacaatac gcagtggagct tcaaaaaata gtttgagacc gccaggcatg ttgagacc tgcgtggacag tgcttgaacc tgggtggacag tgcttgaacc tgggtggacag tgctggacag taggtcatgag aaaactat	aaagaaaaaa cacattaaca ttcaaatgat agaaactcaa ggtaaaaatg taagagaacc ttgacctctc aaagattcct caaggtcttg aaatggaatt aaaccttgag tacttcactt gttgccaagg agttttgcaa acttactac acttgggagg gagattgcgc aaaaataaaa taatgccagc agcctggcca gtggcatata acggaggcag agcaagattc agcaggaaa	gaatgaagaa tatgcatact ggccagtaac tgaattcaa atcagaaaca atcagaaaca atatacgaca atatacgaca atatacgaca atatacgaca aagagttatt gcaacccaag tattcagtat acactatgc gtatgaaata gctgagggag gataaaaaga tatactactg aatacacact acagagcact aaaatttaaa acttggggaa ccacgcactc aaaatttaaa acttgggaaa cttataaca acttgggaaa cttataaca acttgggaaa cttataaca acttgggaaa cttataaca acgagttgct tgtccaaaa aaggctggg	acaaatatac aaataacag gagagtaccg ttcctagatt gtaggataa aagaacatca atgaatgata aagacatca atgaatgata aagctgtctt tgtacatcca ggtccatcga taaagagaa taaagtgaaat cctagggtag ggagtaacgt gttctggaga aacagtataac gagtctgtt gtacatcgg ggagtaacgt gttctgggaga accatgggt agaattgctt aatgattaag gccgaggcag accctgtctc cagctacagat aaacaaaaac gagtcaagat aacaaaaac gaggaggaag atgtttaatg gggcaggaaa	ticaatagac aatctcagca gaagcagatg titgttitaa tacaataga acatattga tcaaaaatat tgttcatagc caaataatat tgttcatagc caaataatat gaagccagca tcaaattcag ggagttattg cagatggtgg ttaaaaatga gtgtggtggc gaaccagaa acaggaggcca gcgatcactt tgctaaaaat tgagactgag cagatggtgg gaaacagaa acaggaggcca gcgatcactt tgctaaaaat tgagactgag cgcgccactg aaaaacaaaa aagaaagatg tataaaatgg ggataattgag gcgccacttg taaaacaaaa tgagactgag cgcgccactg aaaaacaaaa agaaagatga attaaaatgg tgtaaggtgaa	attattcaaa aaatgtggca agaaagagga agcaataaca agcagctaga aaccacaata agtgctcaaa agcattattc aaatgtggta acaatgcta caaatgtggta acaatggta acaatgcta caaatgggt tgaagggtggt ttaacatggt tgagggtggt ttaacatggt ggcacctgt ggcacctgt ggcacctgt ggcacctgt ggcacctgt ggcacctgt ggcacctgt ggcacctgt ggcacctgt aaactccggta gaaacaaatta acacgagaat acacagaga acaaaaacca gcaggaccaa taaatttat ataaagacat	28920 28980 29040 29100 29160 29220 29280 29340 29460 29520 29580 29760 29760 29880 29980 29980 30060 30120 30180 30240 30360 30360 30420 30480

-20 of 185-

aggctgaaaa	caaqtqaccc	cagagggtaa	tctgaattct	cacagaaaat	tgaagcatag	30720
					ttcttctctg	30780
					tgaacctata	30840
					agagttggaa	30900
			acagatagta			30960
			aataattaca			31020
			cacaaaaagg			31080
			attaaattat			31140
taagttaaga	cacacatgtt	aaaccctaga	tactaaaaag	taactcacat	aaatacagta	31200
aaaaaataaa	taaaataatt	aaaatgtttg	tattagtttc	ctcagggtac	agtaacaaac	. 31260
taccacaaat	tgagtggctt	aacacaactt	aaatgtattt	tctcccagtt	ctggaggcta	31320
aacacctgca	atcaaggtga	gtacagggcc	atgctccctg	tgaaggetet	aggaaagaat	31380
			tctcagtaac			31440
			agaaaataat			31500
					gttctttgaa	31560
aagatcaacc	aagttaacaa	accttttaac	tagactgaca	aaaaggaggt	aagactcaaa	31620
			ttactaatga			31680
cgaacaaatg	tgtgccaaca	aattagaaaa	cttagatgaa	atggacaggt	tcctaggaca	31740
			aagagacaat			31800
gaagagactg	aattgacaac	caagaaacta	tccacaaaga	aaatcccagg	cccagaagat	31860
ttcactgtga	aattctttca	aacttataaa	tataaattaa	catcagttct	tcacaaactc	31920
ctccaaaaaa	aagaacagat	ctctatttac	aggcgatacg	atctttagaa	aatcctaagg	31980
			acaagttcag			32040
			acacttgcag			32100
ttaaqaaaat	aattcaattt	acaataacat	caaaaagaat	aaaaacactc	aaaaataaat	32160
ttattcaagt	aaqtqcaaaa	cttatactct	agaagctaca	aaacactgtt	aaaagaaatt	32220
aaaggtttac	ataaatgaaa	aactatccca	tgttcatgga	tcaaaagact	tattactggc	32280
aatgctctcc	aaattgatct	ataaattcaa	caaaatcctt	atcaaaatcc	cagatgaggc	32340
			gcactttggg			32400
			ccaacatgga			32460
			tgcctataat			. 32520
			agaggttgca			32580
			ttccatctca			32640
			attattctaa			32700
			aacacgaaca			32760
gccaattgca	aatgttacga	cacagcaaca	gtaatcaaga	ctatataata	ctggcaaaag	32820
			taattgagag			32880
tctatcctaa	atacttttct	atttttttct	tttttttt	cttttttcta	gagatagaat	32940
ctcaccatct	tacccaaact	agtetteaac	ttctgggctc	aagcaatcct	cccactataa	33000
cctcccaaaa	tactagget	actogcatoa	gccaccacat	ccaccccc	trattttraa	33060
assactcasc	aaccattc	ttttcaacaa	ataggtctgg	gatgatgaga	tactcacate	33120
222222222	tgaagttgga	ccctccatca	cactaaagtg	ctacasttst	agccacacg	33180
caccacatco	accccasata	attttcasaa	aggtcaacaa	gaggattat	ttcaacaaat	33240
						33300
ccatatocaa	aaattaatta	assastasst	aaaaaaaatg tgatgactta	aagetggace	ttaccactct	33360
assactatta	aaaccaaccc	tacccctasa	tcttaaagac	aacgcaagag	agactyt	33420
attacacata	gaaggaaaca	catgggtaaa	taaggtaaaa	taggitty	tetaeetaee	33420
anantanan	acaccaaaag	tacaaaaaaa	accatcaaga	cayyycaaac	cgcacccacc	33540
aaaacyaaaa	tooggana	cygaaayyac	accaccaaga	aatggaaage	caaaatagcc	33600
aaggcaatat	taagcaaaaa	gaacaaagct	ggaggcatca	tactacetga	cttcaaagca	
			aaaaacagac			33660
			tatagtcaac			. 33720
ccttcaataa	atgatactag	gaaaactgga	tatcgatatg	cagaagaata	aaactagacc	33780
CCTATCTCTC	accatataga	aaaatcaact	cagactgaat	taaagacttg	aatgtaagac	33840
ccaaaactat	aaaactactg	gragaaaaca	taaggaaaaa	cgcttcagga	cattggtcca	33900
			acacaggcaa			33960
tagcacttta	ttaaactaaa	aagctcctgc	acagcaaagg	aaacaacaga	atgaaaagac	34020
aacctgtaga	atgggagaaa	atatttgcaa	actatccatc	catcaaggga	ctagtatcca	34080
gaacacacaa,	gtgactaaaa	caactcaaca	gcaaaaaagc	aaataatctg	gtttttatat	34140
gggcaaaaga	tctgaataaa	cattctcaaa	ggaagacata	caaatgtcac	tatcattctg	34200
ccagtaccac	actgtcttga	ttacttgtta	gtgtataaat	ttttaaattg	ggaagtgtga	34260
greatectae	actttgttct	tgtttttcaa	gtttgttttg	gctattctgg	gagccttgca	34320
agtataaaat	agccaacaag	tatgaaaaaa	tgctcaccat	cactaatcat	cagagaaata	34380
aaaatcaaga	ccactatgag	atatcctctc	actccagtta	gaatggctac	tatcaaaaag	34440

-21 of 185-

acaaaatata	atggatgctg	gcaaagattt	ggagaaaggg	gaactcctat	acactgtggg	34500
tagggatgca	aattggtaat	ggccattatg	gaaaataata	ctgaggtttt	tcaaaaaact	34560
					caaaggaaag	34620
aagtcagtat	actgaagaaa	tatatgcact	ctcatqttaa	ttqcaacact	gttcacaaca	34680
	ggaataaatc					34740
	caatagaata					34800
	tgaacctgga					34860
					cacagaatta	34920
qaaqqqqaqq	cttqqqaaaa	gttaatggat	aaaaatttac	agctatgtaa	gaagaataag	34980
	ctatagaact					35040
caaaaaqcta	gaagagattt	tggatgttcc	cagcacaaag	gaatgataaa	tatttataat	35100
	ctaattaccc					35160
cactctgtac	ctcataaata	totataatta	ttacqtcaac	aaaaaaagga	aaaaaaagaa	35220
	acccacataa					35280
aatatttaat	atttataata	tataaagaac	tcctacaact	caagaacaac	aacaaaacaa	35340
	aaatgggtaa					35400
	gacacgaaaa					35460
aaccacaatq	tagaatgtag	acaccacttc	atatgcacta	ggatggctag	aataaaaagg	35520
taataacaaa	tgttggtaag	gatgtgaaaa	aatcaqaaac	ctcattcgct	gctgttggga	35580
	atgcagccac					35640
agagttaccg	tatgacccag	gaatattect	cctagatcta	taaccaaaaa	aatgaaaaca	35700
tatatccaca	taaaaacttg	tacatgggca	tttatagcaa	cattattcat	aacagcaaag	35760
gtggtaagaa	cccatatgcc	catcatctqa	tgaacaggta	aataacatgc	ggtattatcc	35820
	atattatctg					35880
gaatctcgga	aaccttatgc	taagtgaaag	aagccagtca	caaatgacca	cagattatga	35940
ttccatgcat	cggaaatgac	cagaataggg	aaatctatag	agacagaaag	tagattagtg	36000
	gctgggagga					36060
accacaaact	ggggagctta	aacatagaaa	ttgatttcct	cacagttctg	gagactagga	36120
ctctgagatc	aaggtgtcag	cagagetggt	tctttctgag	gaccctgagg	caaggetetg	36180
tcccaggcct	ctctccttgg	ctggcaggtg	gccatcttct	ccctqcqtct	tcacatcatc	36240
ttttctctgt	gtgtgcccat	gtccaaattt	tgattggctc	attetgggte	atggccaatt -	36300
gctatgcaca	aagtgaagtc	tacttccaaa	agaagggaag	agggaacact	gactaggcta	36360
aacttatagt	cattttaatg	tccgcttttc	ctatgagatt	gtgaacacac	agaagtaggg	36420
tttttatcta	cattgtgcaa	agtttaataa	gaaaaataga	attcaagaga	agcagttcaa	36480
tagcaggaat	ttaatatggg	aactaattac	aaggtttagg	gcaggactaa	aaagccagtt	36540
gggatggtga	gccaacccag	agattagcaa	cagtgggacc	ccatctacct	accacccatg	36600
aagctggaag	gataaaggag	gggctattat	cagagtccac	aagccagtgt	cagagtcctt	36660
ggctggagct	gggaccaccc	tagagacact	gtgcaaagca	gaaaacaagg	gggaaaaacc	36720
ctgacttctc	ccttcctccc	acctttcaat	ctcccactag	tgcttcctac	tagccatact	36780
tggccagaga	cagtgacaag	gaacactgca	aaatgaagtt	tgtaggaatc	atctccctct	36840
gagacagaga	aatatggaag	ggtagaaaat	gaatcagagg	ataaaqaqaa	aaaaccctga	36900
gtactatctt	atttatcttt	gtatctccag	tgcctaatct	gtctctcaaa	aaaggaaagc	36960
aattgagaga	aactgaaaac	tccaattgaa	atgaaagaat	ggagaattac	tggactagaa	37020
gagaagagaa	aaatttattc	cgcatagagt	aaacaagaat	ggattcacaa	aggacgtgat	37080
gaatgaaaag	ctataatcag	caaagatttg	ccagagaaat	taaaaagtgg	taaactcagc	37140
cacgctgtac	aacctgaagg	cacaatgcat	gaaaacgttt	caagaaatga	caagatttga	37200
agtcaaattc	taagtgcttt	tccagaatct	ctcaagacga	ttatatagct	accccatttt	37260
attaaataaa	atggaaactt	actaaacttt	ccccttgtat	taaactaaca	tatgtcctaa	37320
tagcaaacga	ttctggaatt	cctagagtaa	aatatatttc	gtcaaagtgt	attgctcttt	37380
taatattctg	ctgacctcct	tttgctattt	aggatatttg	tatacacatc	acacgtaaat	37440
ttggtctata	gtttacatct	acgggcttat	actgttcttt	ttttcatttt	tttaaaattt	37500
ccaaccccca	gtatccatat	actgctctct	atcagggtta	ttttaacttt	gtaaaatcag	37560
ctgagatgct	ttccatgttt	tttttttta	ttttctgcca	catttgaata	gcataggagt	37620
taccaccatc	aaccttggat	tatttaagca	ttcacgattc	cacgtgtgga	ttttttattc	37680
agagtctttc	ttgtcattcc	tgctatcagc	acagaaccca	atctcagctt	tccagctata	37740
ctctcacccc	atggaatttg	cagatgaagt	tcaaaaggac	ctttgcatta	tcctgcctcg	37800
ccctcttccc	ccttcattta	gacatcacct	tcttctagaa	cqtcttacct	gacatgccct	37860
gctcccaacc	cctgctgccc	aattgtgtgc	teteceatat	cctaacctac	catcctcttt	37920
agtaattgcc	tgctccctca	tetgteteee	cacccagaca	ttaagctgaa	tagactggat	37980
ttgtgtcttg	tccatcacta	taatctcagc	acctagtacc	tagtaggtac	ttaccatgta	38040
ttcattagca	aaatgttatg	tataaccttg	caccttaaaa	acaagagaag	gaagacaaaa	38100
ttaagtctta	agactatggt	ttagaacatg	gatcagaaac	tacagtctgc	agcccaaatc	38160
cagaccaaat	gaagagacca	tgttcattta	catacaacct	atagcagctt	tcacactaca	38220

-22 of 185-

ggagcagagc	taagtagttc	caagggaaca	cacggccctg	caaagcctaa	aatatttact	38280
ctatagetet	tcacagaaaa	agttttcaga	tccctcgttt	agaactcttg	ttcatatgca	38340
atttcactaa	accatagttt	tttgggtttg	tttggttttt	tttggcaaaa	aggaatgagc	38400
		agaatgaatc				38460
		ctgacaccca				38520
tactgtgttc	tcaatgccga	gtccacccac	tccataacca	tgtccaagca	atcttgggaa	38580
		atccttaagg				38640
		ggccaggagg				38700
		agcaggagct				38760
atacttttca	ccctttcaag	agagactagg	aatctggatt	tttatgtgaa	atatetteat	38820
		catgtcaaaa				38880
tgactattca	ggttatagaa	ttaaggattc	ttatccaaca	cagataccaa	ccaaaaagct	38940
		aaactatgtg				39000
		attccagttg				39060
		aaagataaca				39120
		taaaaagagg		_	_	39180
ctotaatoco	aggacgeaaa	gaggccgagg	cadacageta	atraartrar	ragatroaca	39240
ccatcctccc	taacatooto	aaaccccgtc	tetacteasa	acgaagecag	ttaggggggg	39300
ateateataa	caacacggcg	teccagetae	tcaccgaaa	gaggaggaga	aatoggatga	39360
		agtgagccga				39420
		aaaaatataa				39480
transparta	aaaaagagag	agactgctaa	tanataat	gitgaatgat	gecaagegea	39540
		gatggccggg				39600
		ggatcatgag				.39660
		taaaagtaca				39720
		gagccttggg				39780
		aatctggcag				39840
		cctgggtcta				39900
		attcagcatt				39960
					accaagtaac,	40020
agagatgggt	ggtgagtgac	aatcctaaga	tacagaataa	aggctagaac	atgatgccat	40080
		tgcacacaaa				40140
		acttacatgt				40200
		tcttcctcct				40260
aaggatgaag	acttttatga	taatccaatt	ccaaggaact	aatgaaaagt	atattttctc	40320
ttccttatga	ttttcttat	ctctagctta	cattattcta	agaatatggt	acataataca	40380
catcacacgc	aaaataaatg	ttaattgact	gtttatatta	tgggtaaggc	ttccactcaa	40440
		agttttggga				40500
geaggeaate	agtteeetg	acccctcat	tgttcacggg	tcaactgtat	atacacaaaa	40560
		gaatagctgt				40620
		ccaacaaatg				40680
		gggctaagaa				40740
ctgaggtcta	aaaccaagga	aagggagggc	caggcgtgga	ggctcacgcc	tgtaatccca	. 40800
gcactttggg	aggctgaggc	gggcggatca	caagattagg	agtttgagat	cagcctggcc	40860
		ctacaaaaaa				40920
gcctgtagtt	agctactctg	gaggctgagg	caggagaatc	acttgaaccc	aggaggcgga	40980
ggttgcaggg	agccgagatc	acaccattgc	actccagcct	gggtgacaga	gtaagactct	41040
gtctcaaaaa	aacaaaaaa	ataaaaaaac	agagaaaggg	aggaaactag	atccaggctg	41100
actagataca	gcctttagag	ttagaaaaga	tgatttgaca	atctaagccc	acactcagat	41160
tgaatgaaat	tgaaaagcct	ttcaaactaa	aacatttaat	tacaccatct	gctgcagaca	41220
gaactcagac	aactcaaaca	ggtaatgtca	gcgtggtgtt	ttatatcacc	accctcaaca	41280
cagaataaaa	atcagctgca	tgtgaagcag	tgactagaat	gaagaaaagg	ctgcttctta	41340
cttccttcta	gtggttctt	ccgaaaacat	taataggcac	cagctctatg	catgtcaccc	41400
rgcagggaga	catggggtat	ataactatga	cttactgttc	attcctcaag	gaattcccaa	41460
tcttgtggaa	gattatacac	aatgaggcaa	caaaaactat	ccaataaaac	cacggaaaag	41520
aagccagtga	caaagaagcc	agtgatgaaa	ggccctgtga	gcagagctga	tggccatttg	41580
gggaagaaag	accaacatgg	atgggggtga	tcagggtggc	tccgtgggaa	agctggaaga	41640
gaagtggcag	acccctgage	tggatgatgg	gccactacca	tctgtatatg	gctaattaaa	41700
gaccatgtgt	ggattttta	ttcagctctt	tcgtgtcatt	cctgctatca	gcacagaacc	41760
caatctcaac	tttccagcta	tattgagcta	aacttctcac	ctcatggaat	ttgcagataa	41820
agttcaaaag	gatccttgcc	ttttcaaaat	aattttgaat	ggttgagtag	tccctctgtg	41880
ctctctcact	gacaccctct	caaggctgct	gagcacgtgc	catgctatgg	ctttctccaa	41940
catcaggaaa	tgttctccac	tcagtttcac	cttaatacaa	atgtgttctc	tcttcagaga	42000

-23 of 185-

	attcatgacc	atctgactgg	gagaagtcat	ttctaggtaa	agtgtccatc	42060
	gaacacagga					42120
2010015		335555555		300000000	5499000449	
	aaaataaata					42180
aataaatgaa	tgatagggtc	ttctgtattg	gccaggctag	tctcaaattc	ctggcttcaa	42240
gagatectee	caccttggtc	teccacagto	ttgggattat	agacatgage	cattgtgctt	42300
ggcccaagac	tgttattctt	aaaaagcccc	acaaaaagca	tggttaatee	Liggelggea	42360
cctgggaact	tagatttcag	aagggttccc	accatccaac	ctggaaagag	ggactcactg	42420
tocctaaatt	attgtgtggt	ttatgctgaa	ctcctgcttt	tetteaggta	gcgtggaatg	42480
taatatataa	taggggggg	gggggtggt	22222222	2000003300	3-5-55-4-5	
cggcacgcgc	tgggcaaagg	agacccacac	gaccageeee	Caalaaaac	eergggrace	42540
gggtctctag	tgagtttccc	tggtagacag	catttcacat	gcgttgtcac	agctccttcc	42600
tcggggagtt	aagcacatac	atcctqtqtq	actgcactgg	gagaggatgc	ttqqaaqctt	42660
atacctaact	tcctttggac	ttggcccat	gcacctttcc	ctttactast	tatactttat	42720
3 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	teteeteggae		geacetteec	cccgccgac	egegeeeege	
	tgtaataaat					42780
accaccagat	ctgagcatgg	tcctgggggc	ccccaacaca	gaaataaatt	ataaaagacc	42840
	catggtggcc					42900
ggaggagtta	agcccaaaag	ttgaaagtta	nagtgaggta	tanataaaaa	2252225	42960
aacctgggag	acagagcaag	accetgteee	caaaacaata	aactaaacac	atacttctgc	43020
cttccaagtg	tcttaaaatt	caatggaatg	qtaqaaacat	ttttaaaaca	ctaaatcaaa	43080
	aaaacaagag					43140
gtaaaaagta	ctcagaacca	gattacctga	gcaaaccata	gcccaataca	agcttgggag	43200
gaggctgtta	tgcagaagga	aatggtaaca	ggtttccagg	aacagacttg	taacaqcaqa	43260
tagaacagca	gaggtagaac	ctgacaaggt	gattacctog	ggaactgcag	tetgaatgae	43320
caggagtgtt	gangastaa	catasastaa	225222222	3344003043	22222222	
cayyactytt	ggacccttcc	ccccacatgg	aacacacacg	ccactcagca	gcacaccaca	43380
gctcttcaac	aatcacagga	ggcacgctac	gcctagtaag	acaggaaaaa	aggaattctc	43440
aaacttcqaa	gatgaacaca	taaaqaatca	ccaaqttttt	attcagtatg	atgaaacagg	43500
gacactgaat	caacagaaca	caaacccaac	casadataat	tactacacca	catagagaa	43560
actactagat	attcttggga	agaeetaagg	ggacattata	aagagcaagc	agttggtatg	43620
tgacgatctt	tgtgatatac	caagaaataa	aaacacagga	tgaagaccag	atagagaata	43680
atgctactat	ttgtgcaaaa	aaggagaaat	ggagaatetg	attcatattt	gcttgtattt	43740
acatasaas	actttqqaaq	gtagataagt	3345444	asteattage	tagttatag	
	actttggaag					43800
gcgagagaag	taagaggaca	ggaatggtgg	gaacaccttt	tgtgtccgga	attggtgggt	43860
tettggtetg	acttggagaa	tgaagccgtg	gaccctcqcq	gtgagcgtaa	caqttcttaa	43920
aggcggtgtg	tctggagttt	attectteta	atotttooat	atattcaaaa	tttcttcctt	
aggcggtgtg			atgtttggat	gtgttcggag	tttcttcctt	43980
aggcggtgtg ctggtgggtt	cgtagtctcg	ctgactcagg	atgtttggat agtgaagctg	gtgttcggag cagaccttcg	tttcttcctt cggcgagtgt	43980 44040
aggcggtgtg ctggtgggtt		ctgactcagg	atgtttggat agtgaagctg	gtgttcggag cagaccttcg	tttcttcctt cggcgagtgt	43980
aggeggtgtg etggtgggtt tacagetett	cgtagtctcg aagggggcgc	ctgactcagg atctagagtt	atgtttggat agtgaagctg gttcgttcct	gtgttcggag cagaccttcg cctggtgagt	tttcttcctt cggcgagtgt tcgtggtctc	43980 44040 44100
aggcggtgtg ctggtgggtt tacagctctt gctagcttca	cgtagtctcg aagggggcgc ggagtgaagc	ctgactcagg atctagagtt tgcagacctt	atgtttggat agtgaagetg gttegtteet egaggtgtgt	gtgttcggag cagaccttcg cctggtgagt gttgcagctc	tttetteett eggegagtgt tegtggtete atatagaeag	43980 44040 44100 44160
aggcggtgtg ctggtgggtt tacagctctt gctagcttca tgcagaccca	cgtagteteg aagggggege ggagtgaage aagagtgage	ctgactcagg atctagagtt tgcagacctt agtaataaga	atgtttggat agtgaagetg gttegtteet egaggtgtgt acgeatteea	gtgttcggag cagaccttcg cctggtgagt gttgcagctc aacatcaaaa	tttetteett eggegagtgt tegtggtete atatagacag ggacaaacet	43980 44040 44100 44160 44220
aggeggtgtg ctggtgggtt tacagetett getagettea tgeagaeeea tcageagege	cgtagtctcg aagggggcgc ggagtgaagc aagagtgagc ggaatgcgac	ctgactcagg atctagagtt tgcagacctt agtaataaga cgcagcacgt	atgtttggat agtgaagctg gttcgttcct cgaggtgtgt acgcattcca taccactctt	gtgttcggag cagacettcg cetggtgagt gttgcagetc aacatcaaaa ggctcgggca	tttetteett eggegagtgt tegtggtete atatagacag ggacaaacet geetgetttt	43980 44040 44100 44160
aggeggtgtg ctggtgggtt tacagetett getagettea tgeagaeeea tcageagege	cgtagtctcg aagggggcgc ggagtgaagc aagagtgagc ggaatgcgac	ctgactcagg atctagagtt tgcagacctt agtaataaga cgcagcacgt	atgtttggat agtgaagctg gttcgttcct cgaggtgtgt acgcattcca taccactctt	gtgttcggag cagacettcg cetggtgagt gttgcagetc aacatcaaaa ggctcgggca	tttetteett eggegagtgt tegtggtete atatagacag ggacaaacet geetgetttt	43980 44040 44100 44160 44220 44280
aggcggtgtg ctggtgggtt tacagctctt gctagctca tgcagaccca tcagcagcgc attctcttat	cgtagteteg aagggggege ggagtgaage aagagtgage ggaatgegae etggeeacae	ctgactcagg atctagagtt tgcagacctt agtaataaga cgcagcacgt ccatatcctg	atgtttggat agtgaagetg gttegtteet egaggtgtgt cgeatteea taceaetett etgattggte	gtgttcggag cagaccttcg cctggtgagt gttgcagctc aacatcaaaa ggctcgggca cattttacag	tttcttcctt cggcgagtgt tcgtggtctc atatagacag ggacaaacct gcctgctttt agagccgact	43980 44040 44100 44160 44220 44280 44340
aggcggtgtg ctggtgggtt tacagctctt gctagctca tgcagacca tcagcagcgc attctcttat gctccatttt	cgtagtctcg aagggggcgc ggagtgaagc aagagtgagc ggaatgcgac ctggccacac acagagaacc	ctgactcagg atctagagtt tgcagacctt agtaataaga cgagcacgt ccatatcctg gattggtcca	atgitiggat agtgaagctg gttcgttcct cgaggtgtgt acgcattcca taccactctt ctgatiggtc ttttcagag	gtgttcggag cagacettcg cctggtgagt gttgcagetc aacatcaaaa ggetcgggca cattttacag agetgattgg	tttcttcctt cggcgagtgt tcgtggtctc atatagacag ggacaaacct gcctgctttt agagccgact tccattttga	43980 44040 44100 44160 44220 44280 44340 44400
aggeggtgtg ctggtgggtt tacagetett getagetea tgeagacea teageagege attetettat getecatttt cagagtgetg	cgtagtctcg aagggggcgc ggagtgaagc aagagtgagc ggaatgcgac ctggccacac acagagaacc attggtgcgt	ctgactcagg atctagagtt tgcagacctt agtaataaga cgcagcacgt ccatatcctg gattggtcca ttacaatccc	atgitiggat agtgaagctg gttcgttcct cgaggtgtgt acgcattcca taccactctt ctgattggtc tttttcagag tgagctagac	gtgttcggag cagacettcg cctggtgagt gttgcagetc aacatcaaaa ggetcgggca cattttacag agctgattgg acagggtget	tttcttcctt cggcgagtgt tcgtggtctc atatagacag ggacaaacct gcctgctttt agagccgact tccattttga gactggtgta	43980 44040 44100 44160 44220 44280 44340 44400
aggcggtgtg ctggtgggtt tacagctctt gctagctca tcagcagcca tcagcagcgc attctcttat gctccatttt cagagtgctg tttacaatcc	cgtagtctcg aagggggcgc ggagtgaagc aggaatgcgac ctggccacac acagagaacc attggtgcgt cttagctaga	ctgactcagg atctagagtt tgcagacctt agtaataaga cgcagcacgt ccatatcctg gattggtcca ttacaatccc cataaaggtt	atgitiggat agtgaagctg gticgticct cgaggtgtgt acgcaticca taccactcti ctgatiggtc ttiticagag tgagctagac ctcaagtccc	gtgttcggag cagacettcg cetggtgagt gttgcagete aacatcaaaa ggetcgggca cattttacag agetgattgg acagggtget caccagacte	tttcttcctt cggcgagtgt tcgtggtctc atatagacag ggacaaacct gcctgctttt agagccgact tccattttga gactggtgta aggagcccaq	43980 44040 44100 44160 44220 44280 44340 44400
aggcggtgtg ctggtgggtt tacagctctt gctagctca tcagcagcca tcagcagcgc attctcttat gctccatttt cagagtgctg tttacaatcc	cgtagtctcg aagggggcgc ggagtgaagc aggaatgcgac ctggccacac acagagaacc attggtgcgt cttagctaga	ctgactcagg atctagagtt tgcagacctt agtaataaga cgcagcacgt ccatatcctg gattggtcca ttacaatccc cataaaggtt	atgitiggat agtgaagctg gticgticct cgaggtgtgt acgcaticca taccactcti ctgatiggtc ttiticagag tgagctagac ctcaagtccc	gtgttcggag cagacettcg cetggtgagt gttgcagete aacatcaaaa ggetcgggca cattttacag agetgattgg acagggtget caccagacte	tttcttcctt cggcgagtgt tcgtggtctc atatagacag ggacaaacct gcctgctttt agagccgact tccattttga gactggtgta aggagcccaq	43980 44040 44100 44160 44220 44280 44340 44400 44460 44520
aggcggtgtg ctggtgggtt tacagctctt gctagctca tcagcagcgc attctcttat gctcattt cagagtgctg tttacaatcc ctggcttcac	cgtagtctcg aagggggcgc ggagtgaagc aggaatgcgac ctggccacac acagagaacc attggtgcgt cttagctaga ccagtggatc	ctgactcagg atctagagtt tgcagacctt agtaataaga cgcagcacgt ccatatcctg gattggtcca ttacaatccc cataaaggtt cggcatcagt	atgitiggat agtgaagctg gitegitect egaggigtgi aegeaticea taccaeteti etgatiggie titticagag tgagetagae etcaagtece gecacaggtg	gtgttcggag cagacettcg cetggtgagt gttgcagete aacatcaaaa ggetcgggca cattttacag agetgattgg acagggtget caccagacte gagetgctg	tttcttcctt cggcgagtgt tcgtggtctc atatagacag ggacaaacct gcctgctttt agagccgact tccattttga gactggtgta aggagcccag ccagtcccgc	43980 44040 44100 44160 44220 44280 44340 444400 44460 44520 44580
aggoggtgtg ctggtgggtt tacagctcta gctagaccca tcagcagcgc attctcttat gctccattt cagagtgctg tttacatcc ctggcttcac gccctgcgc	cgtagtctcg aagggggcgc ggagtgaagc aagagtgagc ggaatgcgac ctggccacac acagagaacc attggtgcgt cttagctaga ccagtggatc cgcactcc	ctgactcagg atctagagtt tgcagacctt agtaataaga cgcagcacgt ccatatcctg gattggtcca ttacaatccc cataaaggtt cggcatcagt agccctctgg	atgitiggat agtgaagctg gitcgitcct cgaggigigi acgcaticca taccactcti ctgatiggic titticagag tgagctagac ctcaagtccc gccacaggig tggtcgatgg	gtgttcggag cagaccttcg cctggtgagt gttgcagctc aacatcaaaa ggctcgggca cattttacag agctgattgg acagggtgct caccagactc gagctgcctg gactggcgc	tttcttcctt cggcgagtgt tcgtggtctc atatagacag ggacaaacct gcctgctttt agagccgact tccattttga gactggtgta aggagcccag ccagtcccgc cgtggagcag	43980 44040 44100 44160 44220 44280 44340 44460 44460 44520 44580 44640
aggoggtgtg ctggtgggtt tacagctct gctagctca tcagcagcgc attctcttat gctccatttt cagagtgctg tttacaatcc ctggcttcac gccctgcgc	cgtagtctcg aagggggcgc ggagtgaagc aagagtgagc ctggccacac acagagaacc attggtgcgt cttagctaga ccagtggatc cgcactcctc tgtcagggag	ctgactcagg atctagagtt tgcagacctt agtaataaga cgcagcacgt ccatatcctg gattggtcca ttacaatccc cataaaggtt cggcatcagt agccctctgg gctcgggccg	atgitiggat agtgaagctg gticgticct cgaggigtgt acgcaticca taccactcti ctgatiggtc titticagag tgagctagac ctcaagtccc gccacaggtg tggtcgatgg cacaggagcc	gtgttcggag cagacettcg cctggtgagt gttgcagete aacatcaaaa ggctcgggca cattttacag agctgattgg acagggtget caccagactc gagctgcctg gactgggcgc caggaggtgg	tttcttcctt cggcgagtgt tcgtggtctc atatagacag ggacaaacct gcctgctttt agagccgact tccattttga gactggtgta aggagcccag ccagtcccgc cgtggagcag gggtggctca	43980 44040 44100 44160 44220 44280 44340 44460 44520 44580 44640 44700
aggoggtgtg ctggtgggtt tacagctctt gctagctca tcagcagcgc attctcttat gctccatttt cagagtgctg tttacaatcc ctggcttcac gccctgcgcc ggggtggtgc ggcatggcgg	cgtagtctcg aagggggcgc ggagtgaagc aagagtgagc ctggccacac acagagaacc attggtgcgt cttagctaga ccagtggatc cgcactcctc tgtcagggag gccgcaggtc	ctgactcagg atctagagtt tgcagacctt agtaataaga cgcagcacgt ccatatcctg gattggtcca ttacaatccc cataaaggtt cggcatcagt agcctctgg gctcgggccg atgagcgctg	atgitiggat agtgaagctg gtitcgticct cgaggigtgt acgcaticca taccacteti ctgatiggic titticagag tgagctagac ctcaagtccc gccacaggtg tggtcgatgg cacaggagcc ccccgcaggg	gtgttcggag cagacettcg cctggtgagt gttgcagete aacatcaaaa ggctcgggca cattttacag agctgattgg acagggtget caccagacte gagctgcctg gactgggcgc caggaggtgg aggcagctaa	tttetteett cggcgagtgt tcgtggtete atatagacag ggacaaacet gcetgettt agagecgact tccattttga gactggtgta aggageccag ccagtcecgc cgtggageag gggtggetea gggccageag	43980 44040 44100 44160 44220 44280 44340 44460 44460 44520 44580 44640
aggoggtgtg ctggtgggtt tacagctctt gctagctca tcagcagcgc attctcttat gctccatttt cagagtgctg tttacaatcc ctggcttcac gccctgcgcc ggggtggtgc ggcatggcgg	cgtagtctcg aagggggcgc ggagtgaagc aagagtgagc ctggccacac acagagaacc attggtgcgt cttagctaga ccagtggatc cgcactcctc tgtcagggag gccgcaggtc	ctgactcagg atctagagtt tgcagacctt agtaataaga cgcagcacgt ccatatcctg gattggtcca ttacaatccc cataaaggtt cggcatcagt agcctctgg gctcgggccg atgagcgctg	atgitiggat agtgaagctg gtitcgticct cgaggigtgt acgcaticca taccacteti ctgatiggic titticagag tgagctagac ctcaagtccc gccacaggtg tggtcgatgg cacaggagcc ccccgcaggg	gtgttcggag cagacettcg cctggtgagt gttgcagete aacatcaaaa ggctcgggca cattttacag agctgattgg acagggtget caccagacte gagctgcctg gactgggcgc caggaggtgg aggcagctaa	tttetteett cggcgagtgt tcgtggtete atatagacag ggacaaacet gcetgettt agagecgact tccattttga gactggtgta aggageccag ccagtcecgc cgtggageag gggtggetea gggccageag	43980 44040 44100 44160 44220 44280 44340 44460 44520 44580 44640 44700 44760
aggoggtgtg ctggtgggtt tacagctct gctagctca tcagcagcc atcacttt cagagtgctg tttacaatcc ctggctcac gccttgcgc gggtggtgc ggcatggcg gaaatcggc	cgtagtctcg aagggggcgc ggagtgaagc agagtgagc ctggccacac acagagaacc attggtgcgt cttagctaga ccagtggatc cgcactcctc tgtcagggag gccgcaggtc acagcagctg	ctgactcagg atctagagtt tgcagacctt agtaataaga ccatatcctg gattggtcca ttacaatccc cataaaggtt cggcatcagt agcctctgg gctcgggccg atgagcgctg ctggcccagg	atgitiggat agtgaagctg gtitcgticct cgaggtgtgt acgcaticca taccacteti ctgatiggtc titticagag tgagctagac ctcaagtecc gccacaggtg tggtcgatgg cgcacaggagc ccccgcaggg tgctaagcc	gtgttcggag cagacettcg cetggtgagt gttgcagete aacateaaa ggetcgggca cattttacag agetgattgg acagggtget caccagacte gactggceg gactggege caggaggtgg aggcagetaa ctcactgcet	tttetteett cggcgagtgt tegtggtete atatagacag ggacaaacet geetgettt agageegaet tecattttga gactggtgta aggageecag ecagteecge egtggageag gggtggetea ggeecageag gggtggetea	43980 44040 44100 44160 44220 44280 44340 44460 44520 44580 44580 44700 44760 44760 44820
aggoggtgtg ctggtgggtt tacagctct gctagctca tgcagacca tcagcagcgc attctcttat gctccattt cagagtgctg tttacaatcc ctggcttcac gccctgcgc gggatggtgg ggaatggcg ggaatcggc gggatggtg	cgtagtctcg aagggggcgc ggagtgaagc aggagtgagc ctggccacac acagagaacc attggtgcgt cttagctaga ccagtggatc cgcactcctc tgtcagggag gccgcaggtc acagcagctg gccgcagctc	ctgactcagg atctagagtt tgcagacctt agtaataaga ccatatcctg gattggtcca ttacaatccc cataaaggtt cggcatcagt agcctctgg gctcgggccg atgagcgctg ctggccagg ctggccagg	atgitiggat agtgaagctg gticgticct cgaggtgtgt acgcaticca taccacteti ctgatiggtc titticagag tgagctagac ctcaagtccc gccacaggtg tggtcgatgg cacaggagcc ccccgcaggg tgctaagccc ggcccgccaa	gtgttcggag cagacettcg cctggtgagt gttgcagetc aacatcaaaa ggetcgggca cattttacag agetgattgg acagggtget caccagactc gagetgcetg gactggegc caggaggtgg aggcagetaa ctcactgcet gccacgcc	tttetteett cggcgagtgt tegtggtete atatagacag ggacaaacet gcetgettt agagecgaet tecattttga gactggtgta aggageccag ccagtecege cgtggageag gggtggetea ggeccageag gggtggeetta agggeegttg acegggaact	43980 44040 44100 44160 44220 44280 44340 44460 44520 44520 44580 4460 44760 44760 44820 44880
aggoggtgtg ctggtgggtt tacagctctt gctagctca tgcagacca tcagcagcgc attctcttat gctccatttt cagagtgctg tttacaatcc ctggcttcac gccctgcgcc ggggtggtgc ggcatggcgg gaaatcgggc gggccggctg cacgctggc	cgtagtctcg aagggggcgc ggagtgaagc aggagtgagc ggaatgcgac ctggccacac acagagaacc attggtgcgt cttagctaga ccagtggatc cgcactcctc tgtcagggag gccgcaggtc acagcagctc gccgcagctc cgcaagctc	ctgactcagg atctagagtt tgcagacctt agtaataaga cgagcacgt ccatatcctg gattggtcca ttacaatccc cataaaggtt cggcatcagt agccctctgg gctcgggccg attagccagg ctggccagg ctggccagg ccagtgcgg gcgtacagc	atgitiggat agtgaagctg gticgticct cgaggtgtgt acgcaticca taccactcti ctgatiggtc titticagag tgagctagac ctcaagtccc gccacaggtg tggtcgatgg cacaggagc ccccgcaggg tgctaagcc cgcccgcaaa ccggttcccg	gtgttcggag cagacettcg cctggtgagt gttgcagetc aacatcaaaa ggetcgggca cattttacag agetgattgg acagggtget caccagactc gactggcgc caggaggtgg aggcagetaa ctcactgcet geccacgcec ccegcgcetc	tttetteett cggcgagtgt tegtggtete atatagacag ggacaaacet ggacgaett tecattttga gactgetgta aggageccag ccagtccege cgtggageag gggtggetea ggeccageag gggtggettg acgggagett accgggaact tecetecaca	43980 44040 44100 44160 44220 44280 44340 44460 44520 44580 44580 44700 44760 44760 44820
aggoggtgtg ctggtgggtt tacagetete getageecea teageagege attetettat getecattt cagagtgetg tttacatee ctggettea gecetgegee gggtggtge ggcatggeg ggaaateggge gggeeggetg caegetggee cetecetgea	cgtagtctcg aagggggcgc ggagtgaagc ggaatgcgac ctggccacac acagagaacc attggtgcgt cttagctaga ccagtggatc cgcactcctc tgtcagggag gccgcaggtc acagcagctg gccggccgct cgcaagcacc aagctgaggg	ctgactcagg atctagagtt tgcagacctt agtaataaga cgcagcacgt ccatatcctg gattggtcca ttacaatccc cataaaggtt cggcatcagt agcctctgg gctcgggcg atgagcgctg cctggccagg cccagtgcgg gcgtacagc agctggccagg	atgitiggat agtgaagctg gticgticct cgaggigtgt acgcaticca taccactctt ctgatiggtc titticagag tgagctagac ctcaacaggtg tggtcgatgg cacaggagc ccccgcaggg tgctaagcc ggcaccccaa ccggttcccg agccttggc	gtgttcggag cagacettcg cctggtgagt gttgcagete aacatcaaaa ggctcgggca cattttacag agctgattgg acagggtget caccagacte gactggcgc caggaggtgg aggcagetaa ctcactgcet gccacggcet agccagacaaaa	tttcttcctt cggcgagtgt tcgtggtctc atatagacag ggacaaacct gcctgctttt agagccgact tccattttga gactggtgta aggagcccag ccagtcccgc cgtggagcag gggtggctca ggcccagcga gggccgttg accgggaact tccctccaca ggggcccaca	43980 44040 44100 44160 44220 44280 44340 44460 44520 44520 44580 4460 44760 44760 44820 44880
aggoggtgtg ctggtgggtt tacagetete getageecea teageagege attetettat getecattt cagagtgetg tttacatee ctggettea gecetgegee gggtggtge ggcatggeg ggaaateggge gggeeggetg caegetggee cetecetgea	cgtagtctcg aagggggcgc ggagtgaagc ggaatgcgac ctggccacac acagagaacc attggtgcgt cttagctaga ccagtggatc cgcactcctc tgtcagggag gccgcaggtc acagcagctg gccggccgct cgcaagcacc aagctgaggg	ctgactcagg atctagagtt tgcagacctt agtaataaga cgcagcacgt ccatatcctg gattggtcca ttacaatccc cataaaggtt cggcatcagt agcctctgg gctcgggcg atgagcgctg cctggccagg cccagtgcgg gcgtacagc agctggccagg	atgitiggat agtgaagctg gticgticct cgaggigtgt acgcaticca taccactctt ctgatiggtc titticagag tgagctagac ctcaacaggtg tggtcgatgg cacaggagc ccccgcaggg tgctaagcc ggcaccccaa ccggttcccg agccttggc	gtgttcggag cagacettcg cctggtgagt gttgcagete aacatcaaaa ggctcgggca cattttacag agctgattgg acagggtget caccagacte gactggcgc caggaggtgg aggcagetaa ctcactgcet gccacggcet agccagacaaaa	tttcttcctt cggcgagtgt tcgtggtctc atatagacag ggacaaacct gcctgctttt agagccgact tccattttga gactggtgta aggagcccag ccagtcccgc cgtggagcag gggtggctca ggcccagcga gggccgttg accgggaact tccctccaca ggggcccaca	43980 44040 44160 44160 44220 44280 44340 44460 44520 44580 44640 44760 44760 44820 44880 44940 45000
aggeggtgtg ctggtgggtt tacagetete getagetea teageagege attetettat getecatttt cagagtgetg tttacaatee ctggetteae gecetgege gggtggtg ggaatggeg gaaateggge ggaeggetg caegetggee cetecetgea cagtgeage	cgtagtctcg aagggggcgc ggagtgaagc ggaatgcgac ggaatgcgac acagagaacc attggtgcgt cttagctaga ccagtggatc cgcactcctc tgtcagggag gccgcaggtc acagcagctc gcagccgct gccggccgct cgcaagcacc aagctgagg	ctgactcagg atctagagtt tgcagacctt agtaataaga cgcagcacgt ccatatcctg gattggtcca ttacaatccc cataaaggtt cggcatcagt agcctctgg gctcgggccg atgagcgctg atgagcgctg ccagtgccagg ccagtgcgg gcgtacagcc agctggctcagg	atgitiggat agtgaagctg gitcgitcct cgaggigtgi acgcaticca taccactcti ctgatiggic titticagag tgagctagac cccacaggig tggtcgatgg cacaggagcc ccccgcaggg tgctaagccc ggcccgccaa ccggttcccg agccttggcc agcgcgcca	gtgttcggag cagacettcg cctggtgagt gttgcagete aacatcaaaa ggetcgggca cattttacag agetgattgg acagggtget gactggcete gactggcgc caggaggtgg aggcagetaa ctcactgcet gccacgcce ccegegette ageccagaaa gagtggcac	tttcttcctt cggcgagtgt tcgtggtctc atatagacag ggacaaacct gcctgctttt agagccgact tccattttga gactggtgta aggagcccag ccagtcccgc cgtggagcag gggtggctca ggccagcga ggggcggttg accgggaact tccctccaca ggggctccca taaggctgag	43980 44040 44160 44160 44220 44280 44340 44460 44520 44580 44640 44760 44760 44820 44880 44940 45000 45000
aggoggtgtg ctggtgggtt tacagctcta gctagacca tcagcagcgc attctcttat gctccattt cagagtgctg tttacaatcc ctggcttcac gccctgcgcc gggttgctgc ggcatggcgg gaaatcgggc ggcaggctg cacgctgca cagtgcagc gaggcaccga	cgtagtctcg aagggggcgc ggagtgaagc aagagtgagc ctggccacac acagagaacc attggtgcgt cttagctaga ccagtggatc cgcactcctc tgtcagggag gccgcaggtc acagcagctc gccagcacc acagcagct gccggcagct cgcaagcac acagctgagg gcggaggcgct cgcaagcac agctgagg	ctgactcagg atctagagtt tgcagacctt agtaataaga cgcagcacgt ccatatcctg gattggtcca ttacaatccc cataaaggtt cggcatcagg gctcgggccg atgagcgctg ctggcccagg cccagtgcgg gcgtacagcc agetggccc agetggccc agetggccag gcgtacagcc agetggccag	atgitiggat agtgaagctg gticgticct cgaggigtgt acgcaticca taccactctt ctgatiggtc titticagag tgagctagac ctcaagccc gccacaggtg tgcgatgg cacaggagc acacgcttgac agccttggca cacgctgtca	gtgttcggag cagacettcg cctggtgagt gttgcagete aacatcaaaa ggctcgggca cattttacag agctgattgg acagggtget caccagactc gactggcgc caggaggtgg aggcagetaa ctcactgcet gcccacgccc ccgcgcccc agcccagaaa gagtgggcac cctgcccagaaa gagtgggcac cctctcactt	tttcttcctt cggcgagtgt tcgtggtctc atatagacag ggacaaacct gcctgctttt agagccgact tccattttga gactggtgta aggagccag ccagtcccgc cgtggagcag gggtggctca ggcccagcgattg accgggaact tccctccaca ggggcccac tccctccaca ggggctcca ggggctgag tcatttatgc	43980 44040 44100 44160 44220 44280 44340 44460 44520 44580 44540 44760 44880 44940 45960 45960 45120
aggoggtgtg ctggtgggtt tacagctctt gctagctca tcagcagcgc attctcttat gctccattt cagagtgctg tttacaatcc ctggcttcac gccctgcgc gggtggtgc ggcatggcgg gaaatcgggc cacgctgcac gaggcacgac cattccttaa cattccttaa gctctatt	cgtagtctcg aagggggcgc ggagtgaagc aagagtgagc ctggccacac acagagaacc attggtgcgt cttagctaga ccagtggatc cgcactcctc tgtcagggag gccgcaggtc acagcagctg gccggccgct cgcaagcacc agctgagg gcggaggcgac aggtggagg	ctgactcagg atctagagtt tgcagacctt agtaataaga cgcagcacgt ccatatcctg gattggtcca ttacaatccc cataaaggtt cggcatcagg gctcgggccg atgagcgctg ctggcccagg ccagtgcgg gcgtacagcc agctggctca ggctcctca ggactccag ttgaccag ttgaccag ttgaccag	atgitiggat agtgaagctg gtitcgticct cgaggtgtgt acgcaticca taccactctt ctgatiggtc titticagag tgagctagac ctcaagtccc gccacaggtg tggtegatgg cacaggagcc ccccgcaggg tgctaagcc ggcccgccaa ccggttcccg agccttggcc accggtgca cacgctgtca attatcttac	gtgttcggag cagacettcg cctggtgagt gttgcagete aacatcaaaa ggctcgggca cattttacag agctgattgg acagggtget caccagactc gactggcgc caggaggtgg aggcagctaa ctcactgcet gcccacgcce cccgcgcctc agcccagaaa gagtgggcac cagccagaaa ctctcactt ctattttt	tttetteett cggcgagtgt tcgtggtete atatagacag ggacaaacet gcetgettt agagcegaet tccatttga gactggtgta aggagcecag ccagtecege cgtggageag gggtggetea ggeceagega ggggecgttg accgggaact tccetecaca ggggetecea ggggetecea tccetecaca taaggetgag teatttatge ttttttttt	43980 44040 44160 44160 44220 44280 44340 44460 44520 44580 44640 44760 44760 44820 44880 44940 45000 45000
aggoggtgtg ctggtgggtt tacagctctt gctagctca tcagcagcgc attctcttat gctccattt cagagtgctg tttacaatcc ctggcttcac gccctgcgc gggtggtgc ggcatggcgg gaaatcgggc cacgctgcac gaggcacgac cattccttaa cattccttaa gctctatt	cgtagtctcg aagggggcgc ggagtgaagc aagagtgagc ctggccacac acagagaacc attggtgcgt cttagctaga ccagtggatc cgcactcctc tgtcagggag gccgcaggtc acagcagctg gccggccgct cgcaagcacc agctgagg gcggaggcgac aggtggagg	ctgactcagg atctagagtt tgcagacctt agtaataaga cgcagcacgt ccatatcctg gattggtcca ttacaatccc cataaaggtt cggcatcagg gctcgggccg atgagcgctg ctggcccagg ccagtgcgg gcgtacagcc agctggctca ggctcctca ggactccag ttgaccag ttgaccag ttgaccag	atgitiggat agtgaagctg gtitcgticct cgaggtgtgt acgcaticca taccactctt ctgatiggtc titticagag tgagctagac ctcaagtccc gccacaggtg tggtegatgg cacaggagcc ccccgcaggg tgctaagcc ggcccgccaa ccggttcccg agccttggcc accggtgca cacgctgtca attatcttac	gtgttcggag cagacettcg cctggtgagt gttgcagete aacatcaaaa ggctcgggca cattttacag agctgattgg acagggtget caccagactc gactggcgc caggaggtgg aggcagctaa ctcactgcet gcccacgcce cccgcgcctc agcccagaaa gagtgggcac cagccagaaa ctctcactt ctattttt	tttetteett cggcgagtgt tcgtggtete atatagacag ggacaaacet gcetgettt agagcegaet tccatttga gactggtgta aggagcecag ccagtecege cgtggageag gggtggetea ggeceagega ggggecgttg accgggaact tccetecaca ggggetecea ggggetecea tccetecaca taaggetgag teatttatge ttttttttt	43980 44040 44100 44160 44220 44280 44340 44460 44520 44580 44760 44760 44820 44880 44940 45060 45120 45180
aggoggtgtg ctggtgggtt tacagctctt gctagctca tcagcacca tcagcagcg attctcttat gctccatttt cagagtgctg tttacaatcc ctggcttcac gccttgcgc gggttggtgc ggcatggcgg gaaatcgggc ggacaggctg cacgctgcac cctccctgca cagtgcaccga cagtgcaccga cagtgcaccga ctttttaata tgagatggag	cgtagtctcg aagggggcgc ggagtgaagc agagtgagc cggaatgcgac ctggccacac acagagaacc attggtgcgt cttagctaga ccagtggatc cgcactcctc tgtcagggag gccgcaggtc acagcagctc gccagccgct cgcaagcacc attggtgag gcggagggag gcggagggaggagagagagagagag	ctgactcagg atctagagtt tgcagacctt agtaataaga cgcagcacgt ccatatcctg gattggtcca ttacaatccc cataaaggtt cggcatcagt agcctctgg gctcgggccg atgagcgctg ctggcccagg cccagtgcgg gcgtacagcc agctgctcc aggctcctca ggactgccag ttgaacactg tcgcccagac	atgitiggat agtgaagctg gtitcgticct cgaggtgtgt acgcaticca taccacteti ctgatiggtc titticagag tgagctagac ctcaagtccc gccacaggtg tggtcgatgg cacaggagc ccccgcaagg tgctaagcc ggcccgccaa ccggttcccg agccttggcc accgcttgca acacgctgtca attatcttac tggaqtqcaq	gtgttcggag cagacettcg cctggtgagt gttgcagete acatecaaaa ggctcgggca cattttacag agctgattgg acagggtget caccagacte gactggcege caggaggtgg aggcagctaa ctcactgcet gccacgcce cccgcgcete agccagaaa gagtgggcac cctetcactt ctatttttt tggtgccate	tttetteett cggcgagtgt tcgtggtete atatagacag ggacaaacet gcetgettt agagecgact tccattttga gactggtgta aggagecag ccagtcccg cgtggageag gggtggetea ggccagega ggggcgttg accgggaact tccetccaca ggggetecca taaggetgag teatttatge tttttttt	43980 44040 44100 44160 44220 44280 44340 44520 44520 44580 44760 44760 44760 44880 44940 45060 45060 45120 45180 45240
aggeggtgtg ctggtgggtt tacagetete getageteca tgeagaccca tcageagege attetetat getecatttt cagagtgetg ttacaagete ttacaagete ctggeteca gecetgegee gggetggtg gaaateggge ggaatgegg gaaateggge caegetggee cetecetgea cagtgeageg gaggeaegg gaggeaegg gaggeaegg gaggeaegg gaggeaegg gaggtageg gaggeaegg gaggeaegg gaggtageg gaggeaegg gaggeaegg gaggtageg gaggtageg gaggeaegg gaggtageg	cgtagtctcg aagggggcgc ggagtgaagc aagagtgagc ctggccacac acagagaacc attggtgcgt cttagctaga ccagtggatc cgcactcctc tgtcagggatg gccgcaggtc acagcagctg gccggacgct cgcaagcacc aagctgaggg gtgggctgaa gagcgacga gagcgacgat cagcagctg ccgcaggtct cgcaagcacc aagctgaggg ttgggcttgaa gagcgagcga cagtctggtt tcgctctctg cctcccgggt	ctgactcagg atctagagtt tgcagacctt agtaataaga cgcagcacgt ccatatcctg gattggtcca ttacaatccc cataaaggtt cggcatcagt agcctctgg gctcgggccg atgagcgctg ctggcccagg ccagtgcgcg gcgtacagcc agctgctcc gggctcctca ggactgccag ttgaacactg tcgccagac tcgccagac	atgitiggat agtgaagctg gticgitcet cgaggigtgt acgcaticca taccactett ctgatiggic titticagag tgagctagac cccacaggigt tggtcgatgg cacaggagcc cccegcaggg tgctaagccc ggcccaca ccggttcccg agccttggcc accgctgtca accgctgtca attatcttac tggagtgcat ctggagtgcac ctggagtgcac cccgctgcac actgctgcca cacgctgtca attatcttac tggagtgcac ctcctgcctc	gtgttcggag cagaccttcg cctggtgagt gttgcagctc aacatcaaaa ggctcgggca cattttacag agctgattgg acagggtgct caccagactc gactggcgc caggaggtgg aggcagctaa ctcactgcct gccacgccc cccgcgcctc agccagaaa gagtggcac ctctcactt ctatttttt ttggtgccatc aacctcctga	tttcttcctt cggcgagtgt tcgtggtctc atatagacag ggacaaacct gcctgctttt agagccgact tccattttga gactggtgta aggagcccag ccagtcccgc cgtggagcag gggtggctca gggccgttg accgggaact tccctccaca ggggctccca taaggctgag tttttttttt	43980 44040 44100 44160 44220 44280 44340 44520 44520 44520 44580 44760 44760 44760 44820 44940 45060 45120 45120 45120 45120
aggeggtgtg ctggtgggtt tacagetcte getagetcea teageagege attetettat getecatttt cagagtgetg tttacaatee ctggetteae gecetgege ggatggtg gaaategggg gaaaceggetg caegetggee cetecetgea cagtgeageg gaggeageg catttttatata tgagatggag gaageaega ctttttaata tgagatggag gcaageg ctacaggea gctacage	cgtagtctcg aagggggcgc ggagtgaagc ggaatgcgac ctggccacac acagagaacc attggtgcgt cttagctaga ccagtggatc cgcactcctc tgtcagggag gccgcacgct cgcagccgct acagcagctg gccggccgct aggcggaggg gtgggctgaa gagcgagcga cagtctggtt ccccgggt tcgcaccac	ctgactcagg atctagagtt tgcagacctt agtaataaga cgcagcacgt ccatatcctg gattggtcca ttacaatccc cataaaggtt agcctctgg gctcgggccg atgagcctg ccagtgcgg cccagtgcgg gcgtacagc agctggctcc agctggctcc gggctcctca ggactgccag ttgaccacgt tcgccagac tcgccagac tcgccagac tcgccagac tcgccagac tcgccagac	atgitiggat agtgaagctg gticgitcct cgaggigtg accaticca taccactctt ctgatiggic ttiticagag tgagctagac cccagagggc tggtcgatgg cacaggagc ccccgcaagg tgctaagccc ggcccgccaa ccggttcccg agccttggc agcgtgcca cacgctgtca attatcttac tggattgcag ctcctgcctc ttititattt	gtgttcggag cagaccttcg cctggtgagt gttgcagctc aacatcaaaa ggctcgggca cattttacag agctgattgg acagggtgct cagagetgctc gactggcgc caggaggtgg aggcagctaa ctcactgcct gccacagccc cccgcgcctc agccagaaa gagtgggcac cctctcactt ctatttttt tggtgccatc aacctcctga tatttttt	tttcttcctt cggcgagtgt tcgtggtctc atatagacag ggacaaacct gcctgctttt agagccgact tccattttga gactggtgta aggagcccag ccgtggagcag gggtggctca ggccagcttg accgggaact tccctccaca ggggcctcca taaggctgag tcatttttt tttttttt ctgtagtcag gttagag	43980 44040 44100 44160 44220 44280 44340 44520 44520 44580 44760 44760 44760 44940 45940 45940 45120 45120 45120 45120 45120
aggeggtgtg ctggtgggtt tacagetcte getagetcea teageagege attetettat getecatttt cagagtgetg tttacaatee ctggetteae gecetgege ggatggtg gaaategggg gaaaceggetg caegetggee cetecetgea cagtgeageg gaggeageg catttttatata tgagatggag gaageaega ctttttaata tgagatggag gcaageg ctacaggea gctacage	cgtagtctcg aagggggcgc ggagtgaagc aagagtgagc ctggccacac acagagaacc attggtgcgt cttagctaga ccagtggatc cgcactcctc tgtcagggatg gccgcaggtc acagcagctg gccggacgct cgcaagcacc aagctgaggg gtgggctgaa gagcgacga gagcgacgat cagcagctg ccgcaggtct cgcaagcacc aagctgaggg ttgggcttgaa gagcgagcga cagtctggtt tcgctctctg cctcccgggt	ctgactcagg atctagagtt tgcagacctt agtaataaga cgcagcacgt ccatatcctg gattggtcca ttacaatccc cataaaggtt agcctctgg gctcgggccg atgagcctg ccagtgcgg cccagtgcgg gcgtacagc agctggctcc agctggctcc gggctcctca ggactgccag ttgaccacgt tcgccagac tcgccagac tcgccagac tcgccagac tcgccagac tcgccagac	atgitiggat agtgaagctg gticgitcct cgaggigtg accaticca taccactctt ctgatiggic ttiticagag tgagctagac cccagagggc tggtcgatgg cacaggagc ccccgcaagg tgctaagccc ggcccgccaa ccggttcccg agccttggc agcgtgcca cacgctgtca attatcttac tggattgcag ctcctgcctc ttititattt	gtgttcggag cagaccttcg cctggtgagt gttgcagctc aacatcaaaa ggctcgggca cattttacag agctgattgg acagggtgct cagagetgctc gactggcgc caggaggtgg aggcagctaa ctcactgcct gccacagccc cccgcgcctc agccagaaa gagtgggcac cctctcactt ctatttttt tggtgccatc aacctcctga tatttttt	tttcttcctt cggcgagtgt tcgtggtctc atatagacag ggacaaacct gcctgctttt agagccgact tccattttga gactggtgta aggagcccag ccgtggagcag gggtggctca ggccagcttg accgggaact tccctccaca ggggcctcca taaggctgag tcatttttt tttttttt ctgtagtcag gttagag	43980 44040 44100 44120 44220 44280 44340 44520 44520 44520 44580 44760 44760 44760 44760 45060 45120 45120 45120 45120
aggeggtgtg ctggtgggtt tacagetete getageteca teageagege attetettat getecatttt cagagtgetg tttacaatee ctggetteae gecetgege gggtggtge ggcatggeg gaaateggge gggeaggetg caegetggee cetecetgea cagtgeageg gaggeaega ctttttatat tgagageg geageg gaggeaeega ctttttaat tgagageae ctteaeagea geageteea cagageteea	cgtagtctcg aagggggcgc ggagtgaagc ggaatgagc ggaatgcgac ctggccacac acagagaacc attggtcagc ctagctaga ccagtggat cttagctctc tgtcagggag gccgcactcctc tgtcagggag gccgcagctc acagcagctg gccgcagctc aagctgaggg gtgggctgaa gagcgagcga ccatctcttg tcgcactcctc cgcactcac ccagggt ccacagcac caagctgaggg gtgggctgaa cagcagcagc ccatgttagc ccacagcac ccatgttagc ccatgttagc	ctgactcagg atctagagtt tgcagacctt agtaataaga cgcagcacgt ccatatcctg gattggtcca ttacaatccc cataaaggtt agcctctgg gctcgggcg atgagcgctg ccagtgggg gcgtacagc agctggctcc gggctcctca ggactgccag ttgaccagt tcgccagac tcgccagac tcgccagac tcgccagac agctgctcca gactgccag tcgccagac tcgccagac tcacaccatt gcccagctaa ccagctaa ccagctaa ccagctaa	atgitiggat agtgaagctg gticgticct cgaggtgtgt acgcaticca taccactctt ctgattggtc tttttcagag tgagctagac ctcaacaggtg tggtcgatgg cacaggagcc ccccgcaggg tgctaagccc ggcccgccaa ccggttcccg agccttggcc agcgtgtca cacgctgtca attatcttac tggagtgcag ctctgcctc ttttttattt caatctcctg	gtgttcggag cagaccttcg cctggtgagt gttgcagctc aacatcaaaa ggctcgggca cattttacag agctgattgg acagggtgct cacaggctgc gactggcgc caggaggtgg aggcagctaa ctcactgcct gccacagccc agccagaaaa gagtggcac cctctcactt ctatttttt tggtgccatc aacctcctga tattttttt	tttcttcctt cggcgagtgt tcgtggtctc atatagacag ggacaaacct gcctgctttt agagccgact tccattttga gactggtgta aggagccag ccagtcccgc cgtggagcag gggtggctca ggcccagcga gggccgttg accgggaact tccctccaca ggggccgtcca taaggctgag tcatttatgc tttttttttt	43980 44040 44100 44160 44220 44280 44340 44520 44520 44580 44760 44760 44760 44940 45940 45940 45120 45120 45120 45120 45120
aggoggtgtg ctggtgggtt tacagctctt gctagccca tcagcagcgc attctcttat gctccattt cagagtgctg tttacaatcc gctcctgcgcc ggggtggtgc ggcatggctg gaaatcgggc ggaatcggc cctccctgca cagtgcagcg gaggcagcga ctttttaata tgagatggag gcaagccga ctttttaata tgagatggag gcaagccga ctggcc cccccca cagtgcagca ccccca cagtgcacca	cgtagtctcg aagggggcgc ggagtgaagc ggaatgcgac cggaatgcgac ctggccacac acagagaacc attggtgcgt cttagctaga ccagtggatc cgcactcctc tgtcagggag gccgcacgct cgcaagctg gccggccgct cgcaagcac aagctgaggg gtgggctgaa gagcgaggg gtgggctgaa gagcgagcga cagtctggtt tcgccccgggt tcgcacac ccatgttagc acatgttagc aagtggg	ctgactcagg atctagagtt tgcagacctt agtaataaga cgcagcacgt ccatatcctg gattggtcca ttacaatccc cataaaggtt agcctctgg gctcgggccg atgagcgctg cccagtgegg gcgtacagc cagctggctcc agctggctcca ggctcctca ggactgccag ttgaacactg tcgcccagac tcacaccatt gcccagtagc agaggtccag	atgitiggat agtgaagctg gticgticct cgaggigtgt acgcaticca taccactctt ctgatiggtc ttiticagag tgagctagac ctcaagtccc gcacaggig tggtcgatgg cacaggagc ccccgcaggg tgctaagcc cgcacacgca agccttggcc agcgctcccg agcgctcccg agcgctgcaa ccggttcca ttatcttac tggagtgcat ctctgcct ttttttatt tcaatctcctg tgagccactg	gtgttcggag cagaccttcg cctggtgagt gttgcagctc aacatcaaaa ggctcgggca cattttacag agctgattgg acagggtgct caccagactc gactggcgc caggaggtgg aggcagctaa ctcactgcct gcccacgccc cccgcgccc agcccagaaa gagtggcac cctctcactt ctatttttt tggtgccatc aacctctga cattttttt tagtgccatc acctcgtgat cacctcgtgat cacctcgtgat cacctcgtgat cacctcgtgat cacctcgtgat cacctcgtgat cacctcgtgat cacctcgcct	tttcttcctt cggcgagtgt tcgtggtctc atatagacag ggacaaacct gcctgctttt agagccgact tccattttga gactggtgta aggagccag ccagtcccgc cgtggagcag gggtggctca ggcccagcga gggccgttg accgggaact tccctccaca taaggctgag tcatttttt cttggctcact gtagctggag tcatttattc gtagctggag tcatttattc tctggctcact atagctgga tcattcccc atagctcgca taatcccc atagcag tcattcact gtagctcact atagctgag tcattcact atagctcgca tagtagcac atagctgga tcattcact atagctcgcc atcttaccta	43980 44040 44100 44160 44220 44280 44340 44460 44520 44580 44760 44760 44880 44940 45060 45180 45180 45360 45360 45340 453480
aggoggtgtg ctggtgggtt tacagctcta gctagctca tcagcagcgc attctcttat gctccattt cagagtgctg tttacaatcc ctggcttcac gccctgcgc gggtggtgc ggcatggcgg gaaatcggc cacctgcgc gaggcaccga cttttaata tgagatgcag gaggcaccga ctttttaata tgagatggag gcaaggcaccga ctttttaata tgagatggag gcaagctcca tcgaggttcca tgagagttcca tgagagttcca tgagagttcca tgagattcca ttcaaaagt	cgtagtctcg aagggggcgc ggagtgaagc agagtgagc ctggccacac acagagaacc attggtgcgt cttagctaga ccagtggatc cgcactcctc tgtcagggag gccgcaggtc acagcagctg gccggcagct cgcaagcacc acagcagcacc acagcagcacc acagcagcacc acagcagcacc acagcagcacc acagcagcacc cagcagcacc cagcagcacc acagcagcacc acagcacacc acagcacacc acagcacacc acagcacacac acagcacacac acagcacacac acagcacacac acagcacacac acagcacacaca	ctgactcagg atctagagtt tgcagacctt agtaataaga cgcagcacgt ccatatcctg gattggtcca ttacaatccc cataaaggtt cggcatctgg gctcgggccg atgagcctg ctggcccagg ccagtgcgg ctggcccagg ctggcccag ttgaccagc agctggctc agctggccc agctggccc agctggccc agctgccag ttgaacactg tcgccagac tcacaccatt gcccagctaa cagatggtc attacagac gaagtgaaa	atgitiggat agtgaagctg gtitcgticct cgaggtgtgt acgcaticca taccactctt ctgatiggtc titticagag tgagctagac ctcaagtccc gccacaggtg tggtcgatgg cacaggagcc ccccgcaggg tgctaagccc ggcccgcaa ccggttcccg agccttggcc accggttcca cacgctgtca attatcttac tggagtgcag ctcctgcctc tttttattt caatccctg tgagccactg cccgtggcca	gtgttcggag cagacettcg cctggtgagt gttgcagete aacatcaaaa ggctcgggca cattttacag agctgattgg acagggtget caccagactc gactggcgc caggaggtgg aggcagetaa ctcactgcet gcccacgccc agcccagaaa gagtgggcac cctctcactt ctatttttt ttggtgccatc aacctcctga tattttttt acctcgtgat gactggtgg	tttetteett cggcgagtgt tcgtggtete atatagacag gacaaacet gcetgetttt agagcegaet tccattttga gactggtgta aggagceag ccagtecege cgtggageag gggtggetea gggecgttg accgggaact tccetecaca ggggecegttg accgggaceca tccetecaca taaggetgag tcatttttt ctggetcact gtagtggag tcatttatge ttttttttt ctggetcact gtagtggag catecgeet atettaceta ctcacgectg	43980 44040 44100 44120 44220 44280 44340 44460 44580 44580 44760 44760 44880 44940 450060 45180 45240 45360 45360 45480 45540
aggoggtgtg ctggtgggtt tacagctctt gctagctca tcagagacca tcagcagcg attctcttat gctccatttt cagagtgctg tttacaatcc ctggcttcac gccctgcgc ggaatcgggtgcg gaaatcgggc gggcaggctg cacgctggc cactcctgca cagtgcagc gaggcaccga cttttaata tgagatggag gcaaggcaccga ctttttaata tgagatggag gcaagctcca cggcctccca cggcctccca ttcaaaagt taaccccagc	cgtagtctcg aagggggcgc ggagtgaagc aagagtgagc ctggccacac acagagaacc attggtcgac ctagctaga ccagtggatc cttagctaga ccagtcgat cttagctaga gccactcctc tgtcagggag gccgcacgct cgcaagcac acagcagctg gccggccgct cgcaagcacc aagctgagcga gtgggctgaa gagcgagcga ccatctctg tcgcaccac ccatgttagc aagtctggt tcgccaccac ccatgttagc tagcaccac ccatgttaga tagctgagg taaactttaa actttggag	ctgactcagg atctagagtt tgcagacctt agtaataaga cgcagcacgt ccatatcctg gattggtcca ttacaatccc cataaaggtt cggcatcagg agcctctgg gctcgggccg atgagcgctg ctggcccagg cccagtgcgg gcgtacagc agctgcccagg ttgaacactg ttgaacactg tcgcccagac tcacaccatt gcccagctaa cagatggccg gctacacg gattgaccag ttgaacactg tcgccagac tcacaccatt gcccagac tcacaccatt gcccagac tcacaccatt gcccagac agatgacc gaagtagaca cagatggcg	atgitiggat agtgaagctg gtitcgticct cgaggtgtgt acgcaticca taccactctt ctgatiggtc titticagag tgagctagac ctcaagtccc gccacaggtg tggtcgatgg cacaggagcc cccggcagg tgctaagcc ggccegccaa ccggttcccg agccttggc agccttggc agccttggca cacgetgtca ctctgcctc tittitatit caatctcctg tgagccactg tgagccactg ccgtggca ccggtgcac	gtgttcggag cagacettcg cctggtgagt gttgcagete aacatcaaaa ggctcgggca cattttacag agctgattgg acagggtget caccagactc gactggcgc caggaggtgg aggcagetaa ctcactgcet gcccacgcec cccgcgcata ageccagaaa gagtgggcac cctetcactt ctatttttt tggtgccatc aacctcctga tattttttt acctcgtgat ggcgtggtgg aggtggtgg aggtggtggag	tttetteett cggcgagtgt teggcgagtgt tegtggtete atatagaeag ggaeaaect gcetgettt agagcegaet tecattttga gaetggtgta aggagcecag cegtggageeag gggtggetea ggeceagega gggecegttg acegggaeet tecetecaea ggggecegttg acegggaeet tecetecaea teaggetgag teatttatge ttttttttt etggeteaet gtagetgga teagetgga teagetgga teattatge ttttttttt etggeteaet gtagetgga teagetgga teagetgag teattacet gtagetgag teattacet gtagetgag teattacet atetaceta eteaegeetg ategagatea	43980 44040 44100 44160 44220 44280 44340 44460 44520 44580 44760 44760 44880 44940 45060 45180 45180 45360 45360 45340 453480
aggeggtgtg ctggtgggtt tacagettea tgetagettea tgetagettea tgetagettea tgeteeatttt cagagtgetg tttacaatte cttgtteac gecetgege ggetteac gggetteac gggeatgggg gaateggge gaateggge caegetgge caegeteea tggaattea tgagatgaa ggaatece tteaaaagt taaceceage tcetggttaa	cgtagtctcg aagggggcgc ggagtgaagc aagagtgagc ctggccacac acagagaacc attggtgcgt cttagctaga ccagtgatc cgcactcctc tgtcagggag gccgcaggtc acagcagctg gccggcagct cgcaagcacc acagtgagg gtgggctgaa gagcgagcgat ccgcacgct ccccgggt tcgcaccac ccatgttagc aagtgctggg ttggctgaa gagcgagcga cagtctggt tcgccaccac ccatgttagc aagtgctggg taaactttaa actttgggag cacagtgaa	ctgactcagg atctagagtt tgcagacctt agtaataaga cgcagcacgt ccatatcctg gattggtcca ttacaatccc cataaaggtt cggcatcagt agcctctgg atgagcgctg atgagcgctg ctggcccagg ccagtggctc agctgcccagg ccagtgctc aggactgcag ttgaacactg tcgccagac tcacacatt gcccagac tcacacatt gcccagac tatacagacg gaagtagaaa cagaggcgg cccgtcgct	atgitiggat agtgaagctg gticgitcet cgaggigtgt acgcaticca taccactett ctgatiggc ttittcagag tgagcagac ctcaagtcc gccacaggtg tggtcgatgg cacaggagc ccccgcaag tgctaagccc ggcccaca ccggttccca accgctgtca accgctgtca actatettac tggagggcca cacgctgtca ttitttattt caatctcctg tgagccactg cccgtggcca gcggatcacg ccgggatcacg ccgggatcacg ccgtgacca cacagctgca	gtgttcggag cagaccttcg cctggtgagt gttgcagctc aacatcaaaa ggctcgggca cattttacag agctggtgct cacaggctgct gactggcgc caggaggtgg aggcactaa ctcactgcct gccacgccc agccacgccc agccagaaa gagtgggcac ctctcactt ctatttttt ttggtgccat tatttttt acctcgtgat cagctggtgat caactggct aggtggcac cctctcactt ctattttttt acctcgtgat cagctggtgat caactcctga tattttttt acctcgtgat gggtgggcac cgggggggag caaaaaaatta	tttcttcctt cggcgagtgt tcgtggtctc atatagacag ggacaaacct gcctgctttt agagccgact tccattttga gactggtgta aggagcccag ccagtcccgc cgtggagcag gggtggctca gggccgttg accgggaact tccctccaca ggggccgttg tcctttttttttt	43980 44040 44100 44120 44220 44280 44340 44460 44580 44580 44760 44760 44880 44940 450060 45180 45240 45360 45360 45480 45540
aggeggtgtg ctggtgggtt tacagettea tgetagettea tgetagettea tgetagettea tgeteeatttt cagagtgetg tttacaatte cttgtteac gecetgege ggetteac gggetteac gggeatgggg gaateggge gaateggge caegetgge caegeteea tggaattea tgagatgaa ggaatece tteaaaagt taaceceage tcetggttaa	cgtagtctcg aagggggcgc ggagtgaagc aagagtgagc ctggccacac acagagaacc attggtgcgt cttagctaga ccagtgatc cgcactcctc tgtcagggag gccgcaggtc acagcagctg gccggcagct cgcaagcacc acagtgagg gtgggctgaa gagcgagcgat ccgcacgct ccccgggt tcgcaccac ccatgttagc aagtgctggg ttggctgaa gagcgagcga cagtctggt tcgccaccac ccatgttagc aagtgctggg taaactttaa actttgggag cacagtgaa	ctgactcagg atctagagtt tgcagacctt agtaataaga cgcagcacgt ccatatcctg gattggtcca ttacaatccc cataaaggtt cggcatcagt agcctctgg atgagcgctg atgagcgctg ctggcccagg ccagtggctc agctgctcc aggactgccag ttgaacactg tcgccagac tcgccagac tcacacatt gcccagactaa cagatggtct attacagacg gaagtagaaa gaggaggcgg cccgtcgct	atgitiggat agtgaagctg gticgitcet cgaggigtgt acgcaticca taccactett ctgatiggc ttittcagag tgagcagac ctcaagtcc gccacaggtg tggtcgatgg cacaggagc ccccgcaag tgctaagccc ggcccaca ccggttccca accgctgtca accgctgtca actatettac tggagggcca cacgctgtca ttitttattt caatctcctg tgagccactg cccgtggcca gcggatcacg ccgggatcacg ccgggatcacg ccgtgacca cacagctgca	gtgttcggag cagaccttcg cctggtgagt gttgcagctc aacatcaaaa ggctcgggca cattttacag agctggtgct cacaggctgct gactggcgc caggaggtgg aggcactaa ctcactgcct gccacgccc agccacgccc agccagaaa gagtgggcac ctctcactt ctatttttt ttggtgccat tatttttt acctcgtgat cagctggtgat caactggct aggtggcac cctctcactt ctattttttt acctcgtgat cagctggtgat caactcctga tattttttt acctcgtgat gggtgggcac cgggggggag caaaaaaatta	tttcttcctt cggcgagtgt tcgtggtctc atatagacag ggacaaacct gcctgctttt agagccgact tccattttga gactggtgta aggagcccag ccagtcccgc cgtggagcag gggtggctca gggccgttg accgggaact tccctccaca ggggccgttg tcctttttttttt	43980 44040 44160 44220 44280 44340 444520 44520 44580 445760 44760 44760 44880 44940 45060 451280 45360 45360 45480 45480 45560 45660
aggeggtgtg ctggtgggtt tacagetete getageteca teageagege attetettat getecatttt cagagtgetg tttacaagete ctggetteae gecetgege ggetege ggaateggge gaaateggge gaageggetge caegetgge caegetgge caegetgge gaggeagge gaagegge caegetgge caegetece cttttaata tgagatgga cttttaaaa tgagatgea ctteaaage tteaaaage taaceccage tectggttaa gtggtgggea	cgtagtctcg aagggggcgc ggagtgaagc aagagtgagc ctggccacac acagagaacc attggtcgac ctagctaga ccagtggatc cttagctaga ccagtcgat cttagctaga gccactcctc tgtcagggag gccgcacgct cgcaagcac acagcagctg gccggccgct cgcaagcacc aagctgagcga gtgggctgaa gagcgagcga ccatctctg tcgcaccac ccatgttagc aagtctggt tcgccaccac ccatgttagc tagcaccac ccatgttaga tagctgagg taaactttaa actttggag	ctgactcagg atctagagtt tgcagacctt agtaataaga cgcagcacgt ccatatcctg gattggtcca ttacaatccc cataaaggtt agccctctgg gctcgggccg atgagcgctg ccagtgcgg ccagtgcgg ccagtgcag ccagtgcag ttgacagc agctgccag tcgccagac tcgccagac tcgccagac tcacaccatt gcccagctaa cagatggcta cagatggctc tcgccagac tcacaccatt gcccagctaa cagatggctc tcgccagcg tcgccagctaa cagatggctc tcgccagcgc tcgcagcgc tcgcagcgc tcgcagcgc tcgctactgg	atgitiggat agtgaagctg gticgitcct cgaggiggt accacitct ctgatiggt ttiticagag tgagcaggc tgagcaggcc gcacagggg tggtcagagcc ccccgcaggg tgcacagccag agccttggc agcgcgcaa ccggttcaa ccggttcaa ccggttcaa ccggttccag agccttggc agccttggc agccttgca ttititatit caatctctg tgagccactg tgagccactg tgagccactg agcgcaca actacagagag	gtgttcggag cagaccttcg cctggtgagt gttgcagctc aacatcaaaa ggctcgggca cattttacag agctgattgg acagggtgct gaccaggctc gactggcgc caggaggtgg aggcagctaa ctcactgcct gcccacgccc agcccagaaa gagtgggcac cctctcactt ctatttttt ttggtgccatc aacctcctga tatttttt acctcgtgat gaggtggggagcac cctcactt ctatttttt ggggcacctcgat aactcctgat caacagcct caacagccc agccagaaa gagtgggcac cctctcactt ctatttttt tggtgccatc aacctcctga tattttttt acctcgtgat gaggtaggagaat caaaaaatta gcaggagaat	tttcttcctt cggcgagtgt tcgtggtctc atatagacag ggacaaacct gcctgctttt agagccgact tccattttga gactggtgta aggagcccag ccgtggagcag gggtggctca gggccagcgttg accgggaact tccctccaca ggggctccca taaggctgag tcatttatgc ttttttttt ctggctcagc tttgtttt ctggctcact agtagctgag tcatttatgc ttttttttt ctggctcact actagctgga ccatcgggaac tcggggaac tcggggctccca taggctgag tcatttatgc ttttttttt cggctggaac tcggggctcacca tagctggga ccatccgct atcacgccta accggggcttg gccggggcgtg ggcgtgaacc	43980 44040 44100 44120 44220 44280 44340 444520 44520 44580 44760 44760 44880 44940 45060 45180 45180 45360 45360 45480 45540 45540 45540

-24 of 185-

agcgagactc	: cacctcaaaa	. aaaaaaaaaa	aaaatagaga	cccggaaagt	taaaaatatg	45840
ataatcaata	. tttaaaaaca	. ctcaagagat	gggctaaaga	gttgacggaa	caaatctaaa	45900
tattagattg	gtgacctgca	. aaaccagccc	aaggaacatc	ccagaatgca	gcccataaag	45960
ataaagagag	catttccgct	gggcacagtg	gtatggcagg	ggaattgcct	gagtccaaga	46020
gttgcaggtc	acattgaacc	acaccattge	actccaggcc	tgggcaacac	agcaatactc	46080
tectcaaaa	. aaaaaaaaaa	ctaaactaaa	aaagacagaa	tatttgagag	aaaaaaatgc	46140
ccattteaag	aaacatgaaa	gataaatcaa	gatattctaa	ttcccaagta	agaataattc	46200
atgtatatta	adatayaata	taaaaaaaa	taggaaatgg	acttctccag	cgccatagaa	46260
				tgagcaggaa tcatgcctgt		46320 46380
ctttaggaag	ccasaacsaa	togateacet	gagatraga	gtttgagatc	agtcaggga	46440
acatggtgaa	accetateta	tactaaaaat	acaaacatta	gctgggtatg	ataatacaca	46500
tctqtaatcc	caactacttq	qqaqqctaaq	gcaggagaat	cacttgaaac	caggaggtag	46560
aggitgtagt	gagccgagat	catgccacac	tcccagcctg	ggtgacagag	caagattcca	46620
tctcaaaaaa	aaaatccact	cctagacaaa	taatagttaa	attttagaac	accaaggaga	46680
aagaaaaaaa	attgtaaagc	ttcagagaaa	ataaacatta	actacaaaga	aacgagagtc	46740
agacgcgtgc	acttcttcct	agataccagc	agataaagca	atatctccaa	aattcagaag	46800
				atggaaaagt		46860
acattgttta	aacatgcaag	ggttcagaaa	gtttaccatt	cacagaatcc	ctgaaaacaa	46920
aaccaaataa	tcacttaagg	actcattaag	aaaacaaatg	aaataaaagc	accaatgatg	46980
				gtttatgcat		47040
aacccaaaaa	tttaatatgg	gacagaatta	aaatcatgat	aagattcttt	tttgctttac	47100
tcatggagag	ttcacataaa	cagattatet	tttaatagca	agagaaaaaa	atgtttagat	47160
atgtgtgaaa	aactaagggt	accaaaacag	tgcaaattca	tttatcatca	ggaaaatcca	47220
ttaaaaacc	tatagraces	ccagaataac	ttataaaggtaa	aagacagaaa aataagttgg	traccaagag	47280
actosasact	atttacteat	atctactacac	accaaccaca	tgcacagact	rgeaaceggt	47340 47400
agttccactc	ccagatacac	actcaacaga	accgagcaca	ctcactcaac	acaaccaagc	47460
tactagagtg	ttcatgtact	tactattcat	aatagtccaa	aaatgcaaac	aaccaactcc	47520
caatcaaaqt	caaatgtata	tctatattag	ggatatatac	aatggcatat	acacagcaat	47580
gagaatgaaa	tgaaccagct	cggcacagtg	gttcatgcct	gtaatctcag	cactttqqqc	47640
gggtaaggca	ggcagatcac	ttgaggtcag	aaatttgaga	ctagcctggc	caacacqqtt	47700
aaaacctgtc	cccactaaaa	acacaaaaat	tagccgggca	tagtggttgc	aggcctgtaa	47760
ttccagctac	tcgggaggct	gggttgggag	aatcgtttga	acccgaaagc	cggaggtcgc	47820
agtgagcgga	gatcgtgcca	ctgcactcca	gcctggacga	tagagcaaga	ctccgtctca	· 47880
aaaaaggaaa	tcaaaaatat	aaaataagat	gacaggaata	atccgcaaaa	gatcagtaat	47940
caaaataaat	ataaatgggc	taaagctacc	tattaaaaga	caaagatttc	acacccataa	48000
ggatagctac	tatcaaaaaa	agagagaa	taacagatgt	tagcaaggat	gtatggaaac	48060
tgaaattctc	acgcattgct	ggtgagaata	taaaatggtt	cagcctctgc	ggaaaacact	48120
atgetgggte	atcaaaaaat	taaaaataga	agtactactt	gatccaacaa	ttctacttct	48180
gggcacacac	tattaataat	gaaagcaggg	tettgaagag	atatttgtac	acccatgatc	48240
atetogetae	gcasastgtg	agctatgatg	tggaaccaac	ataaatatcc attaattagc	cccgacaaac	48300
acacygacaa	tracacator	tacaacatoo	atgaacettg	agggcattac	attanatas	48360 48420
ataagccagt	tataaaaaga	casatactat	atgaaccccg	atattagata	ctcatacaa	48420
gtacctaaaa	taggcaaatt	catagagaca	aaaaggagaa	tggtggttgc	cacacactac	48540
ggtaatggat	acagagette	aattttgtaa	gatgaaaaaa	ttctggagat	tagttacata	48600
acaatgtgca	cacacttaac	actogggaac	totaaactta	aaagtagtaa	atootaaaaa	48660
taaaaataat	aaataataaa	ttttatotta	ttttaccaca	atatttatta	aaagacaaag	48720
attaactaat	taaacaaaat	ccagccataa	gctaatggta	agagtaacaa	ttaaagaaga	48780
cacagaaaat	tgaaaatcag	tgactagaaa	aagatattcc	atataaatgc	taacaaaaag	48840
caagtacagc	aatataaaga	gaatgaacaa	aaaaaaaatt	aaataagatg	gctcgtttat	48900
tcccaaaagg	tacaattcac	caagaagata	caagaattqt	gaacctttaa	qcacataaaa	48960
cagcttcaaa	aatacaacat	ttaaagaaaa	atatatatta	aacatagaaa	tagtacaaaa	49020
acccctacaa	gaatcataat	gggagtcttc	aatacaactc	tccatatcaa	caggtcaaac	49080
agagaaaaaa	aataagttaa	ggatgcagaa	aacctgaatt	accatcaata	aacttgagat	49140
taatatagaa	ctgtataccc	aatatactaa	gagttcaggg	aacagtcgtg	actgacagtg	49200
gactgcaaat	taatctgttc	ttaatctttg	tttttcttc	agcactgtgg	cagaatagag	49260
accctaaaaa	ccttccagct	acaaaacatc	tttttaaaaa	tataaaaaaa	tacaaaaata	49320
accetgaaat	edatattaga	cacatggtga	aaccaaaatt	ctagaataca	gggagaataa	49380
atotacttcc	agacactaca	aaatottoo	actgatcatt	gctgaagtaa tctgtgatac	ccccaaaga	49440 49500
ggaaagtgaa	gaaatggaa	adacyccod	aayaadayta	aatgttgacc	aayaaygaat tagaaaataa	49500 49560
	J	~55-4946	uuuyutaata	-augulgauc	cayaaaalad	サンコロリ

-25 of 185-

caaaacaat agcaataatg tctcgttgga agggttgaag taaaaataca attaaggcaatgaagttttc cattcaaaca gttaaaactt gaacaaaata aactcaaata aagtagaaag ataaaaaca gaaattaatg tcatagaaaa ataaaaaac aataaaatc aataaaatc catggttaat aaaagctggt tctttgaaag gattaataaa ataaacatta agcaagtctg atcaaaaaaa aagagaaaag gtaccaaaaa aagtactgta tcagaaaga aacattaatgc tagcatatat taaatttaaa taactttaaa taactttaaa taactttaaa taacattaaaa ttacttgaa gaacagaaa aactgagaa aattaaaata tgaaaagga agctgagat caagttctgc caaacttgag ggaacagata aattaaaata tgatattaac tgatattaac tgcaaaagga aactgagaa aactaaagga caagttctgc caaacttgag ggaacagata attcttcat tccagagga agctgaccaaaaa taggggtaa agcacaaaag tgcatagaaaa aacaccagag cagcccagga gaaaaatga taggggtaa aatcaaaag tgcatttaa accaaaagc gattattaac tagcaaagga aaccacact taggagaaaatc tagcaaatgg aacacacact atggtaacaa attaagccag ggttttagaaaaaccaga gattactaac aaccacacac taggagaga cacacacct taggagaga tactaatgc gaatacaaag ggttttaacaa ttttaagcaa aacacacaaa ggtttttaa accaaaaagg gataacaaag ggatattaaca accaaaaag ggattttaacaa tagtcaacac tagcaacacac tagcagaga gataccaaa accacacac aaccaccctgaaccacacacacacacacacacacacacac	a 49680 49740 49800 g 49860 g 49920 c 49980 a 50100 c 50160 t 50340 g 50460 t 50520 c 50580 t 50760 g 50760 g 50820
aatgtaggt aagtggaatg aaagaattag gattaaaactt gaacaaaata aactcaaat aataaatagag caggttttc cattcaaaca gttaaaactt gaacaaaata aactcaaat aataaaataa	a 49680 49740 49800 g 49860 g 49920 c 49980 a 50100 c 50160 t 50340 g 50460 t 50520 c 50580 t 50760 g 50760 g 50820
aataaatgag ccaggttttc cattcaaaca gttaaaactt gaacaaaata aactcaaata aagtagaaag ataaaaaaca gaaattaatg tcatagaaaa ataaaaaaca aataagaatta agcaagtctg atcaaaaaaa aagagaaaag gtaccaaaaa aagtactgta tcagaaaga aacatacaga tacatacaga tatgtaagag tctgttttct tacaccagaa tacataatac aatattcaat taaattcaat taacattaaga tacataatat taaattcaa taatgtaagag gattaataaa aacattaaga aattaaatac tgatattaac aactgagaaa aactgagaaa aactgagaaa aactgagaaa aactgagaaa aacagaaagg caagccagga agcctgatcc agaaaatgat gaaaatttaac tgatattaac aacacagaag cagcccagga agcagaaaatgat gaaaatgat cacaaaatgag gaaaaatgat cacaaaag ggaacagata attcttctat tccagagca agcagaaaatgat tagaaaatga ccaaaatttaac cagagaggac agcctgatcc ttgttatga gaaaaatga tagaaaatga tagaaaatga tagaaataa aacaccacat tagaaaaag ggaacaaaag accaacacc taaataaga gactttttaa aatgcagga aacacaact tagaaaaag atttgggaa aaaaccaaa accaacacg ggttttaaa actcggtgaa gatacagag gaatgctcc taaaaccaag gaaaaccaac accaccct taaaccaag gaaaaccaac aaccaacac taaaaccaa aaccaacac aaccaacac taaaccaag gaattctaa aaccaaaag gaatgctccc taaaaccaag gaaaaaccaa accaaccact taaacccaag gaaaaccaac tgcaggaga gtaatctatg gaagacaagg aaaaaccaa accaaccac ttaaacccaa agaaccaac accaaccac ttaaacccaa agaaccaac accaaccac ttaaaccaag gaattcctaa aaccaagag gaataccaac tgcagcgaga gtaatctatg gaagacaagg aaaaaccaa accaaccac ttaaacctaag gaataccaac ttaaacccaa accaaccac ttaaacccaa accaacca	t 49740 a 49860 49980 49920 c 49980 a 50100 c 50160 t 50220 a 50460 a 50520 c 50580 c 50760 a 50760 g 50820
aagtagaaag ataaaaaaa gaaattaatg tcatagaaaa ataaaaaatc aatagaatta atcaataaat cctggttaat aaaagctggt tctttgaaag gattaataaa ataatcatt agcaagtctg atcaaaaaaa aagagaaaag gtaccaaaaa aagtactgta tcagaaaga aacatacaga tacatacaga tatgtaagag tctgtttat tacaccagaa tactatatga aatattaaat taaatttaaa taatttaaa gattttctag gaaaacaga aataataga catgaaaaa aactgagaaa aataaatgat catgaaaaaa atgaaaagg aattaaatac tgatattaac tgcctaaaca acaccagcag cagcccagga agtctgcagt caagttctgc caaacttgag ggaacagata attcttctat tccagagca agtctgcagt caagttctgc caaacttgag ggaacagata attcttctat tccagagca agtagaaaatgat ggaaaagtttc ccaaatttaat cagagaggac agcctgatcc ttgttatga actatatgcc aaactcagat accaaaaccc taaataaga gctagcttat tgatgtgaac aatccaaaag tgcattttaa attagcccaa ggttttaga acaccactt tgttaacaa ttttaagacg ggttttaga acaccacct taaacaaagc atttgggaa aaaacccaac accaccct gactttttaa actcttagta actaggaaaagc aacagaaatg tacttaatgc gaatacagag gaatgctcc taaaaccaag gaagacaagg aaaaccaac accaccct taaaccaag gaataccaac tgcagcgaga gtaatctatg gaagacaagg aaaaactaa taaaccaag gaatacctaa taaaccaag gaataccaa accaccact taaaaccaag gaataccaac accaccact taaaaccaag gaataccaac accaccact taaaaccaag gaagacaagg aaaaacataa taaaccaag gaatacctat taaacctgag ccaagactaa acctacttgg gaaaacataa taaaccaag ccaacacact taaaaccaag ccaacacac accaccact taaaaccaag gaataccaac accaccact taaaaccaag gaataccaac accaccaccaccaccaccaccaccaccaccacc	a 49800 a 49860 g 49920 c 49980 a 50100 c 50160 c 50220 a 50280 c 50460 c 50580 c 50760 a 50760 g 50820
atcaataaat cctggttaat aaaagctggt tctttgaaag gattaataaa ataatcatt agcaagtctg atcaaaaaa aagagaaaag gtaccaaaaa aagtactgta tcagaaaga aacataacaga tactatacaga tatgtaagag tctgtttct tacaccagaa tactatata aacattatgc tagcatatat taaatttcaa taatgtaaat gattttctaag gaaaaacaga aattaaatac tactttgaa gaacagaaa aactgagaaa aataaatgat catgaaaaa aagtactgcaga aattaaatac tagaaaatgat catgaaaaa aactgagaaa aataaatgat catgaaaaa aacagaaatga ggaaaatgat caagaacaga ggaacagata attcttctat tccagagca agtctgcagt caagttctgc caaacttgag ggaacagata attcttctat tccagagca agtaaaatgat ggaaagtttc caaatttaat cagagaggac agcctgatcc ttgttatga actaatatgcc aaactcagat accaaaaccc taaataaga gctagcttat tgatgtgaac aatccaaaag tgcattttaa accacacact tgatgaaaaatc tagcaatgg accaccact atgttaacaa tttaagcaga aaaacccaac accacccc gactttttaa actcttagta attaggcata aacagaaatg tacttaatg gatagaata accaggaga gaatgctcc taaaaccaag gaagacaagg aaaacctaa tagcaacaca tgcagcgaga gtaatctatg gaagacaagg aaaaaagta aacaggaata ggaacactat taaaactgag ccaaaaagc accaccact taaaaccaag cccaagacaa agattccta taacctcaa tagtcaacac tgcagcgaga gtaatctatg gaagacaagg aaaaaagta aacattatgag gcaaccaaa tcaaccacac ttaaaaccaag cccaagacaa agattccta taaacctgag gaacactat taaaactgag accaccact taaaaccaag cccaagacaa agattccta taaacctgag gaacactat taaaactgag accaccact taaaaccaag cccaagacaa agattccta taaacctgat ggaacacaga ttacaaccac tcaacccac ttaaaccaag cccaagacaa agattccta taaacctgag gaacactat taaaaccgag ccaaccaccac ttaaaccaag cccaagacaa acctacttgg ggaaccaaa ttcaaactgag ccaacaccac ttacaccac accacccc ttaaaccaag ccaacaccac ttaaacccaa cccaccccac	a 49860 g 49920 c 49980 a 50100 c 50160 c 50220 a 50340 g 50460 b 50520 c 50540 c 505640 a 50760 g 50820
agcaagtctg atcaaaaaa aagagaaaag gtaccaaaaa aagtactgta tcagaaaga aacatacaga tacatacaga tatgtaagag tctgtttct tacaccagaa tactatata taaatttcaa taatgtaaat taatttcaa taatgtaat tacattataa ttactttgaa gaacagaaa aactgagaaa aataaatgat catgaaaaaa agctctgcagt aattaaatac tgatattaac tgcaaacaga aaccagcag cagcccagga agcttgcagt caagttctgc caaacttgag ggaacagata attcttctat tccagagca agcagataaa aatggggtaa actatatgcc aaaccagagagac accacagacag gctagcttat tgatgtgaac aatcaaaag tgcattttaa accaaaaccc taaataaga gctagcttat tagcaatgtg accaccactt atgttaacaa ttagcacagag ggttttaga aatcagaaatc tagcaatgtg accaccactt atgttaacaa ttagaccaag ggtttttaa accacacta attagggaa aatccaaaagc gaatgctcc taaaaaccaa ttagagagac accacacta tagtaaccaa tagcaagaga gaatgctccc taaaaaccaag gaagacaagg gaatgctccc taaaaccaag gaagacaagg gaatgctcc taaaaccaag gaagacaagg aaaacataa taaactgag gaaaactat taaaactgag acaggcttta gggaacaaga ttcaaccaa ttcaactgga gaataccaaa ttcaactgag ccaataagatc accacacaa ttcaactgag gaataccaaa ttcaactgag accaggcttta gggaactaaa ttcaactgag accaggatta acctacttgg aggaacaacaa ttcaactgag accaggatta accacaaaacc accacctattgtgagattaggttg ggtattagga ttcaacaaccaaccaaccaaccaaccaaccaaccaacc	g 49920 49980 a 50040 b 50100 c 50220 a 50280 c 50340 g 50460 c 50520 c 50580 c 50760 a 50760 g 50820
aacatacaga tacatacaga tatgtaagag tctgtttct tacaccagaa tactatata aacattatgc tagcatatat taaatttcaa taatgttaat gatttctag gaaaacagaa aatattaaat ttactttgaa gaaacagaaa aactgagaaa aataaatgat catgaaaaa atgaaaagg aattaaatac tgatattaac tgcctaaaca acaccagcag cagcccagg agtctgcagt caagttctgc caaacttgag ggaacagata attcttctat tccagagca agaaaatgat ggaaagttc ccaatttaat cagagaggac agcctgatcc ttgttatga acacgagataa aatggggtaa actatatgcc aaactcagat accaaaaccc taaataaga acaggataatttaac aatgcatgta accacacatt atgttaacaa ttttaagaccg ggttttaaga aatccagaa accacacct tagtacatatc aatgcatgct acacacaaagc atttgggcaa aataccaac acccacct gacttttaa actcttagta attaggcata accacacaca accacccct gactttttaa actcttagta attaggcata aacagaaatg tacttaatgt gatagaata actcggtgaa gatacagag gaatgctccc taaaaccaag gaagacaagg aaaacactat tagcaacac tgcagcgaga gtaatctatg gaagacaagg aaaaacatat taaaactgag ccataaagac accaccttggagacaa accaccaca ttcaacaga gaatacatga gtaatcaaga gaatactat taaaactgag acaggctta gtatggaggc tcagcctcaacttgtgtgttgtgt	49980 a 50040 a 50100 c 50160 b 50220 a 50340 g 50460 b 50520 c 50580 c 50760 g 50820
aacattatgc tagcatatat taaatttcaa taatgttaat gatttctag gaaaacaga aatattaaat ttactttgaa gaaacagaaa aactgagaaa aataaatgat catgaaaaa atgaaaaagg aattaaatac tgatattaac tgcctaaaca acaccagcag cagcccagg agtctgcagt caaacttgag ggaacagata attcttctat tccagagca agtagaaaatgat ggaaagttc caaatttaat cagagagggac agcctgatcc ttgttatga acacgagatata tagcagatata aatgaggtaa actaatatgcc aaactcagat accaaaaccc taaataaga gctgattat tagcaatgtg accaccactt atgttaacaa ttttaagacg aaaatctac gactttttaa actcttagta accacaaaagc atttgggcaa aataccaac acccacct gactttttaa actcttagta attaggcata acaaaaagc atttgggcaa aaaacccaac acccacct taaacccaac gactttttaa actcttagta attaggcata aacagaaatg tacttaatgt gatagaata actcggtgaa gataccagag gaatgctccc taaaaccaag gaagacaagg aaaaacata taaaactgag gaatctattg gatagaataa cgaatcaagg gaaaacata taaaactgag acaggctta ggtataaccaa ggatatattg ggtaccaaa actacttgg agagaccaaa ttcaactcgc ttgtgtgtg ggtattagga ttgacaagcc tgtgctcgcc cctcccc catcttcaa actgaaataa cacggtgttt ggaactggat aacagaatct tccaaaaaca aaaattgtc	a 50040 a 50100 c 50160 b 50220 a 50340 g 50460 a 50520 c 50580 c 50760 a 50760 g 50820
aatattaaat ttactttgaa gaaacagaaa aactgagaaa aataaatgat catgaaaaa atgaaaaggt aattaaatac tgatattaac tgcctaaaca acaccagcag cagcccaggagaaaatgatgatgcagtttc ccaatttaat cagagaggac agcctgatcc ttgttatga actaagataaa actaatagcc aaactcagag accacaccc taaatagac aatacataga actaatagcc aaactcagat accaaaaccc taaatagac aatacataga actaatatgcc aaactcagat actaataccc aacgagagaca actaatatgcc aaactcagat actaaaaccc taaatagac aatacataaca ttgtaagaaatcc tagatcatata aatgcaatgtg accacactt atgttaacaa ttttaagacg aaaatctac aatgcagtgaa actacaaaagc atttgggcaa aaaacccaac acccacct gactttttaa actcttagta attaggcata aacagaaatg tacttaatgt gatagaata actcggtgaa gatacagagg gaatgctccc taaaaaccaag cccaagacaa agattccta taacctcaa tagtcaacac tgcagcgaga gtaatctatg gaagacaagg aaaaacata taaaactgag acagcttta gtatggaggc tcagctca ttgatgttg ggctaccaaa ttcaactcgc ttgcttggag agttaatcct gcaaagccaactgttgttgtgagaataa cacggtgttt ggaactggat aacagaatct tccaaaaaca aaaattgtcaactgaaataa cacggtgttt ggaactggat aacagaatct tccaaaaaca aaaattgtcaaactgaaaacaaacaaaccaaac	a 50100 50160 50220 50280 t 50340 g 50460 t 50520 c 50580 t 50760 g 50760 g 50820
atgaaaaggt aattaaatac tgatattaac tgcctaaaca acaccagcag cagcccagga agtetgcagt caagttetge caaacttgag ggaacagata attettetat tecagagca agaaaatgat ggaaaagttte ccaatttaat cagagaggac agcctgatec ttgttatga actatatgc aaactcagat accaaaaccc taaataaga getagettat tgatgtgaac actatatgc acacacatt tatgcccag ggttttaga attegeccag ggttttaga actatattgc aaagaaaatc tagcaatgtg accaccactt atgttaacaa ttttaagacg aaaatcacc tgatcatate aatgcagtgt accacaaag atttgggcaa aaaacccaac acccacct gacttttaa actettagta attaggcata aacagaaatg tacttaatgt gatagaata acteggtgaa gatacagagg gaatgeteec taaaaccaag cccaagacaa agatteeta taacctcaa tagtcaacac tgcagcgaga gtaatctatg gaagacaagg aaaaacatat cgaatcaaga gaatactat taaaactgag acaggetta ggatacaaa tcaacaaggctaa acctacttgg ggaacacaa ttcaacteg ttgcttggag agttaatect gcaaagccaa actgagataa accggtgttt ggaactggat aacagaatct tccaaaaaca acacgctaacaa accgaactaa ttcaacteg ttgcttggag agttaatcct gcaaaagctaa accgaaataa acacggagtta accgaaataa acacggtgat aacaggaataa acacgaataa ttcaaacteg ttgcttggag agttaatcct gcaaaagctaa accgaaataa accgaaataa acacggagtta aacagaatac tccaaaaaca acacgaataa accgaaataa tcaaaccga acaggcttaa accgaaacaa accgaaataa accgaaataa accgaaataa accgaaataa accgaaataa accgaaataa accgaaataa accgaaacaa accgaaataa accgaaataa accgaaataa accgaaataa accgaaacaa accaacaa acccaacaa acccaacaa acccaacacc accacaccaa accaacacaa accaacacaa accaacacaa accaacacaa accaacacacaaacaaacaaacaaacaaaacaaaacaaaa	C 50160 t 50220 a 50280 t 50340 g 50400 a 50520 c 50580 t 50640 a 50700 a 50760 g 50820
agtetgeagt caagttetge caaacttgag ggaacagata attettetat tecagagea agaaaatgat ggaaagttte ccaatttaat cagagagac ageetgatee ttgttatga cacagataaa aatggggtaa actatatgee aaacteagat accaaaacee taaataaga getagettat tgatgtgaac aateeaaaag tgeattttaa attageecaag ggttttaga aaagaaaate tageaatgtg accaceaett atgttaacaa ttttaagaeg aaaatetae gaetttttaa actettagta attaggeata aacagaaatg taettaatgt gatagaata acteggtgaa gatacagag gaatgetee taaaaccaag cecaagaeaa agatteeta taaceteaa tagtcaacae tgeagegaga gtaatetatg gaagacaagg aaaaacatgag gacatetgtt gtttaacaga caataagate acctacttgg agaacactat taaaactgag acaggetta ggtaateeta ttaaactgag getattagga tteaacee ttgeagegaga acctgtttggggggggggggggggggggggggggg	t 50220 a 50280 t 50340 g 50460 c 50580 t 50640 a 50700 a 50760 g 50820
agaaatgat ggaaagtttc ccaatttaat cagagaggac agcctgatcc ttgttatga cacagataaa aatggggtaa actatatgcc aaactcagat accaaaaccc taaataaga gctagcttat tgatgtgaac aatccaaaag tgcattttaa attagcccaag ggtttagaa aaagaaaatc tagcaatgtg accaccact atgttaacaa tttaagaccg aaaatctagactttttaa actcttagta attaggcata aacagaaatg tacttaatgt gatagaata accaggtgaa gatacagagg gaatgctcc taaaaccaag cccaagacaa agattccta taacctcaa tagtcaacac tgcagcgaga gtaatctatg gaagacaagg aaaaacatat taaaactgag ccaataagatc acctacttgg ggataccaaa ttcaactcgc ttgctgtga agtaatccc gaattaagatc accaccact taaaactgag caatacatgag caatcatgag caatcaggc taaaccaag ccaagacaa tcagattag ggataccaaa ttcaactcgc ttgcttgga agttaatcct gcaaagcca actgaaataa cacggtgttt ggaaactggat aacagaatct tccaaaaaca acaagacca acctacttcaa actgaaataa cacggtgttt ggaactggat aacagaatct tccaaaaaca aaaattgtcaactgaaacaaaaca	a 50280 t 50340 g 50400 a 50460 t 50520 t 50640 a 50700 a 50760 g 50820
cacagataaa aatggggtaa actatatgcc aaactcagat accaaaaccc taaataaga gctagcttat tgatgtgaac aatccaaaag tgcattttaa attagcccag ggttttaga aaagaaaatc tagcaatgtg accaccactt atgttaacaa ttttaagacg aaaatctac tgatcatatc aatgcatgct acacaaaagc atttgggcaa aaaacccaac accaccct gactttttaa actcttagta attaggcata aacagaaatg tacttaatgt gatagaata actcggtgaa gatacagag gaatgctcc taaaaccaag cccaagacaa agattcta ttaacctcaa tagtcaacac tgcagggaga gtaatctatg gaagacaagg aaaaacata tgaagagga caataagatc accacttgg gaatacaga gaatacatga gtaaacaga gaatacatga gtaaacaga gatagctca ttaaactgag gaatacaga ttcaaggctta ggtatggagg tcagctta ttctgttga ggtattagga ttgacaagc tgtgctcctc cctcccc catcttcaa actgaaataa cacggtgttt ggaactggat aacagaatct tccaaaaaca aaaattgtcaactgaaataa cacggtgttt ggaactggat aacagaatct tccaaaaaca aaaattgtcaactgaaataa cacggtgttt ggaactggat aacagaatct tccaaaaaca aaaattgtcaactgaaataa cacggtgttt ggaactggat aacagaatct tccaaaaaca aaaattgtcaaactgaaataa cacggtgttt ggaactggat aacagaatct tccaaaaaca aaaattgtcaaactgaaataa cacggtgttt ggaactggat aacagaatct tccaaaaaca aaaattgtcaaactgaaataa cacggtgttt ggaactggat taccaaaacca tccaacaccaccaccaccaccaccaccaccaccaccacca	50340 50400 50460 50520 50580 50640 50760 50760 50820
gctagcttat tgatgtgaac aatccaaaag tgcattttaa attagcccag ggttttaga aaagaaaatc tagcaatgtg accaccactt atgttaacaa ttttaagacg aaaatctag tgatcatatc aatgcatgct acacaaaagc atttgggcaa aaaacccaac acccacct gactttttaa actcttagta attaggcata aacagaaatg tacttaatgt gatagaata actcggtgaa gatacagagg gaatgctcc taaaaccaag cccaagacaa agattccta taacctcaa tagtcaacac tgcagcgaga gtaatctatg gaagacaagg aaaaacata cgaatcagc gaaaaactat taaaactgag caataggctta gtttaaccag ccaagacaa agaggcaa cgaatcaggt gaaaaactat taaaactgag acaggctta gtatggaggc tcagcttca tttctgttga ggtattagga ttgacaagc tgtgctcctc cctcccc catcttcaa actgaaataa cacggtgttt ggaactggat aacagaatct tccaaaaaca aaaattgtcaaactgaaataa cacggtgttt ggaactggat aacagaatct tccaaaaaca aaaattgtcaaactgaaataa cacggtgttt ggaactggat aacagaatct tccaaaaaca aaaattgtcaa	g 50400 a 50460 t 50520 c 50580 t 50640 a 50760 g 50820
aaagaaaatc tagcaatgtg accaccactt atgttaacaa ttttaagacg aaaatctac tgatcatatc aatgcatgct acacaaaagc atttgggcaa aaaacccaac accaccct gactttttaa actcttagta attaggcata aacagaaatg tacttaatgt gatagaata actcggtgaa gatacagagg gaatgctcc taaaaccaag cccaagacaa agattccta ttaacctcaa tagtcaacac tgcagcgaga gtaatctatg gaagacaagg aaaaacatgaga gatatcaaga gatataacaga gatataacaga caataagatc accacttgg aagaggcaa cggatcaagc gaaaaactat taaaactgag acaggctta gtatggaggc tcagcttca tttctgttga ggtattagga ttgacaagc tgtgctcctc cctcccc catcttcaa actgaaataa cacggtgttt ggaactggat aacagaatct tccaaaaaca aaaattgtcaactgaaataa cacggtgttt ggaactggat aacagaatct tccaaaaaca aaaattgtcaa	50460 50520 50580 50640 50700 50760 50820
tgatcatatc aatgcatgct acacaaaagc atttgggcaa aaaacccaac acccacct gactttttaa actcttagta attaggcata aacagaaatg tacttaatgt gatagaata actcggtgaa gatacagagg gaatgctccc taaaaccaag cccaagacaa agattccta ttaacctcaa tagtcaacac tgcagcgaga gtaatctatg gaagacaagg aaaaaaagta aacatgaga gacatctgtt gttaacaga ccaataagata acctacttgg agaggcatca taaaactgag acaggctta gtatggaggc tcagctca ctgtagtttg ggctaccaaa ttcaactcgc ttgcttggag agttaatcct gcaaagccaactttctgttga ggtattagga ttgacaagcc tgtgctcctc cctccccc catcttcaa actgaaataa cacggtgttt ggaactggat aacagaatct tccaaaaaca aaaattgtc	50520 50580 50640 50700 50760 50820
gactttttaa actcttagta attaggcata aacagaatg tacttaatgt gatagaata actcggtgaa gatacagagg gaatgctcc taaaaccaag cccaagacaa agattccta ttaacctcaa tagtcaacac tgcagcgaga gtaatctatg gaagacaagg aaaaaagta aacatgaga gacatctgtt gtttaacaga caataagatc acctacttgg aagaggcaa cgaatcaagc gaaaaactat taaaactgag acaggctta gtagtgggg tcagctca tttagtttg ggctaccaaa ttcaactcgc ttgcttggag agttaatcct gcaaagcta tttctgttga ggtattagga ttgacaagc tgtgctcctc cctcccc catcttcaa actgaaataa cacggtgttt ggaactggat aacagaatct tccaaaaaca aaaattgtc	50580 50640 50700 50760 50820
actoggtgaa gatacagagg gaatgotoco taaaaccaag cocaagacaa agattocta ttaacotoaa tagtoaacao tgoagogaga gtaatotatg gaagacaagg aaaaaagta aaacatgaga gacatotgtt gtttaacaga caataagato acctacttgg aagaggoaa cgaatcaago gaaaaactat taaaactgag acaggottta gtatggaggo toagototgtagtttg ggotaccaaa ttoaactogo ttgotogag agttaatoot gcaaagota tttotgttga ggtattagga ttgacaagoo tgtgotooto cotootoco catottoaa actgaaataa cacggtgttt ggaactggat aacagaatot tocaaaaaca aaaattgto	50640 50700 50760 50820
ttaacctcaa tagtcaacac tgcagcgaga gtaatctatg gaagacaagg aaaaaagta aaacatgaga gacatctgtt gtttaacaga caataagatc acctacttgg aagaggcaa cgaatcaagc gaaaactat taaaactgag acaggcttta gtatggaggc tcagcttcatgtagtttg ggctaccaaa ttcaactcgc ttgcttggag agttaatcct gcaaagcta tttctgttga ggtattagga ttgacaagcc tgtgctcctc cctcctccc catcttcaa actgaaataa cacggtgttt ggaactggat aacagaatct tccaaaaaca aaaattgtc	a 50700 a 50760 g 50820
ttaacctcaa tagtcaacac tgcagcgaga gtaatctatg gaagacaagg aaaaaagta aaacatgaga gacatctgtt gtttaacaga caataagatc acctacttgg aagaggcaa cgaatcaagc gaaaactat taaaactgag acaggcttta gtatggaggc tcagcttcatgtagtttg ggctaccaaa ttcaactcgc ttgcttggag agttaatcct gcaaagcta tttctgttga ggtattagga ttgacaagcc tgtgctcctc cctcctccc catcttcaa actgaaataa cacggtgttt ggaactggat aacagaatct tccaaaaaca aaaattgtc	a 50700 a 50760 g 50820
aaacatgaga gacatctgtt gtttaacaga caataagatc acctacttgg aagaggcaa cgaatcaagc gaaaaactat taaaactgag acaggcttta gtatggaggc tcagcttca ctgtagtttg ggctaccaaa ttcaactcgc ttgcttggag agttaatcct gcaaagcta tttctgttga ggtattagga ttgacaagcc tgtgctcctc cctccccc catcttcaa actgaaataa cacggtgttt ggaactggat aacagaatct tccaaaaaca aaaattgtc	a 50760 g 50820
cgaatcaagc gaaaaactat taaaactgag acaggettta gtatggagge teagettea etgtagtttg ggetaccaaa tteaactege ttgettggag agttaateet geaaageta tttetgttga ggtattagga ttgacaagee tgtgeteete eeteeteece catetteaa actgaaataa caeggtgttt ggaactggat aacagaatet tecaaaaaca aaaattgte	g 50820
ctgtagtttg ggctaccaaa ttcaactcgc ttgcttggag agttaatcct gcaaagcta tttctgttga ggtattagga ttgacaagcc tgtgctcctc cctcctcccc catcttcaa actgaaataa cacggtgttt ggaactggat aacagaatct tccaaaaaca aaaattgtc	
tttetgttga ggtattagga ttgacaagee tgtgeteete eeteeteece catetteaa actgaaataa caeggtgttt ggaactggat aacagaatet tecaaaaaca aaaattgte	~ ~~~
actgaaataa cacggtgttt ggaactggat aacagaatct tccaaaaaca aaaattgtc	50940
agttgctggt ggataagcct gccaaccagc tcggcgtaat tcttcctgca gagggcaag	
aagagcactt tcacaggaaa attttttcc gaactgtatg ccgcttatta cataaactt	-
cgtgctggca aatggagctc cagcaaaata agatattcag agtcaaactt ccttaggaa	
aaaaaaaaaa aaaagcaagc acataacact aatttccttg catgggcact ggggaagga	
	-
gtegttaett eegeaegeee geaggteege accaeeggga aacceaeggg cacegegeg tgeeceeggg eetteeaggt geaetgegee geggegeeee agetgaeeeg ggatgegea	
coctagooot tocootgtoa cocoggooag gaaggggogg gagogggog gacgoogag	
gcgaagggct tctcggtcct ctgcaccacg cagcacccc aaggcacaac agggagggt	
cgggaggete ecgagaceca ggageegggg eegggegtge eegegeacet gteecaetg	
ggcgagggct ggggtcgcct ccagggccgc agctgtcggg agccacctgg ctctcagtc	
egggteeetg egacaaceet egggeegga ggggaggagg eggeeacetg eegetgeea	
ctgeggeace ggteceaceg etcegggeeg ggeaggaeag geeaggaegt eceteetgg	
ctggggacag gacacgcgac gaggggaccg gggcccccgc ggcgaagacg cagcacgcc	
teccagaaag geagteeegt geeeceaega eggaetgeeg gaeeeeegeg etegeeege	
catecettea gaccaegegg etgaggegea aagageegge eggegggegg getggegge	
eggetagtae teaceggeee egetggetea gegeegeege aaceceeage ggeeaegge	52020
ccgggcgctc actgatgctc aggagaggga cccgcgctcc gccggcgcct ccagccatc	
ccgccagggg gcgagcgcga gccgcgcggg gctcgctggg agatgtagta cccggaccg	52140
ccgccagggg gcgagcgcga gccgcgcggg gctcgctggg agatgtagta cccggaccg cgcctgcgcc gtcctccttc agccggcggc cgggggcccc ctctctccca gctctcagt	52140 52200
ccgccagggg gcgagcgcga gccgcgcggg gctcgctggg agatgtagta cccggaccg cgcctgcgcc gtcctccttc agccggcggc cgggggcccc ctctctccca gctctcagt tctcatctcc ctatctgctc atcctctggt cgcacataat cgatgtttgg gcgtcccaa	52140 52200 52260
ccgccagggg gcgagcgcga gccgcgcggg gctcgctggg agatgtagta cccggaccg cgcctgcgcc gtcctccttc agccggcggc cgggggcccc ctctctccca gctctcagt	52140 52200 52260 52320
ccgccagggg gcgagcgcga gccgcgcggg gctcgctggg agatgtagta cccggaccg cgcctgcgcc gtcctccttc agccggcggc cgggggcccc ctctctccca gctctcagt tctcatctcc ctatctgctc atcctctggt cgcacataat cgatgtttgg gcgtcccaa ccagatgtgg accccatttc cgcactctac actggaggtt ttctaagggt ggtgcccgg ccagcagctt cagcctcatc tgggaacttg agaaaatgca gattctccgt cccacccag	52140 52200 52260 52320 52380
ccgccagggg gcgagcgcga gccgcgcggg gctcgctggg agatgtagta cccggaccg cgcctgcgcc gtcctcttc agccggcggc cgggggcccc ctctctccca gctctcagt tctcatctcc ctatctgctc atcctctgt cgcacataat cgatgtttgg gcgtccca ccagatgtgg accccatttc cgcactctac actggaggtt ttctaagggt ggtgcccgg ccagcagctt cagcctcatc tgggaacttg agaaaatgca gattctccgt cccacccag ctattcggtt tttcctgcac taaaaccatg aaggtggggc ccagcagtcc acattctcg	52140 52200 52260 52320 52380 52440
ccgccagggg gcgagcgcga gccgcgcggg gctcgctggg agatgtagta cccggaccg cgcctgcgcc gtcctcttc agccggcggc cgggggcccc ctctctccca gctctcagt tctcatctcc ctatctgctc atcctctgt cgcacataat cgatgtttgg gcgtccca ccagatgtgg accccatttc cgcactctac actggaggtt ttctaagggt ggtgcccgg ccagcagctt cagcctcatc tgggaacttg agaaaatgca gattctccgt cccacccag ctattcggtt tttcctgcac taaaaccatg aaggtggggc ccagcagtcc acattctcg	52140 52200 52260 52320 52380 52440
ccgccagggg gcgagcgcga gccgccggg gctcgctggg agatgtagta cccggaccg cgcctgcgcc gtcctcttc agccggcggc cgggggcccc ctctctccca gctctcagt tctcatctcc ctatctgctc atcctctgt cgcacataat cgatgtttgg gcgtcccaa ccagatgtgg acccatttc cgcactctac actggaggtt ttctaagggt ggtgcccgg ccagcagctt cagcctcatc tgggaacttg agaaatgca gattctccgt cccacccag ctattcggtt tttcctgcac taaaaccatg aaggtgggc ccagcagtcc acattctcg aagcccgtca agtgattctg aggcgccct cagtttgaga gctatgctca cggcctcac	52140 52200 52260 52320 52320 52380 52440 52500
ccgccagggg gcgagcgcga gccgcgggg gctcgctggg agatgtagta cccggaccg cgcctgcgcc gtcctcttc agccggcggc cgggggcccc ctctctcca gctctcagt tctcatctcc ctatctgctc atcctctggt cgcacataat cgatgtttgg gcgtcccaa ccagatgtgg accccatttc cgcactctac actggaggtt ttctaagggt ggtgccgg ccagcagctt cagcctcatc tgggaacttg agaaaatgca gattctccgt cccaccag ctattcggtt tttcctgcac taaaaccatg aaggtggggc ccagcagtcc acattctcg aagcccgtca agtgattctg aggcgcctc cagtttgaga gctatgctca cggcctcac tccgccccgc aaggagcccg gtcttgcctg tggcgctagc cgcacacgga cacctcatc	52140 52200 52260 52320 52320 52380 52440 52500 52560
ccgccagggg gcgagcgcga gccgccggg gctcgctggg agatgtagta cccggaccg cgcctgcgcc gtcctcttc agccggcggc cgggggcccc ctctctcca gctctcagt tctcatctcc ctatctgctc atcctctggt cgcacataat cgatgtttgg gcgtcccaa ccagatgtgg accccatttc cgcactctac actggaggtt ttctaagggt ggtgcccgg ccagcagctt cagcctcatc tgggaacttg agaaaataga gattctccgt cccacccag ctattcggtt tttcctgcac taaaaccatg aaggtggggc ccagcagtcc acattctcg aagcccgtca agtgattctg aggcgcctc cagtttgaga gctatgctca cggcctcac tccgccccgc aaggagcccg gtcttgcctg tggcgctagc cgcacacgga cacctcatc tgcggggccc gccccccgc tgcaccctca ccgcccaacg cctcctccgg gatgcagcg	52140 52200 52260 52320 52320 52340 52440 52500 52560 52620
ccgccagggg gcgagcgcga gccgccggg gctcgctggg agatgtagta cccggaccg cgcctgcgcc gtcctcttc agccggcggc cgggggcccc ctctctcca gctctcagt tctcatctcc ctatctgctc atcctctggt cgcacataat cgatgtttgg gcgtcccaa ccagatgtgg accccatttc cgcactctac actggaggtt ttctaagggt ggtgcccgg ccagcagctt cagcctcatc tgggaacctg agaaaataga gattetccgt cccacccag aagccgtca agtgattctg aggcgcctc cagtttgaga gctatgctca ccgacctcat tccggcccgc aaggagcccg gtcttgcctg tggcgctagc cgcacacgga cacctcatc tgcggggccc gcccccgc tgcacctca ccgcccaacg cctcctccgg gatgcagcg aggcgcctgg aagtcggaa ggtcaacatc cccctcagca tcttccctac cctcacggc	52140 52200 52260 52320 52320 52340 52440 52500 52560 52620 52680
ccgccagggg gcgagcgcga gccgccgggg gctcgctggg agatgtagta cccggaccg cgcctgcgcc gtcctcttc agccggcggc cgggggcccc ctctctcca gctctcagt tctcatctcc ctatctgctc atcctctggt cgcacataat cgatgtttgg gcgtcccaa ccagaagttg acccatttc cgcactctac actggaggtt ttctaagggt ggtgcccgg ccagcagctt cagcctcatc tgggaacttg agaaaatgca gattctccgt cccaccagg ctattcggtt tttcctgcac taaaaccatg aaggtggggc ccagcagtcc acattctcg aagccgtca agtgattctg aggcgcctc cagtttgaga gctatgctca cggcctcac tccgccccgc aaggagcccg gtcttgcctg tggcacctca ccgccaacg cctcctccag gatgcgcaa aggcgcctgg aagtcggcaa ggtcaacatc cccctcagca tcttccctac cctcacggc cctcctccag gggtgcctca tggccagggg ttagaaagag ccactgtgt tcttgacat	52140 52200 52260 52320 52320 52380 52400 52560 52560 52680 52680
ccgccagggg gcgagcgcga gccgccgggg gctcgctggg agatgtagta cccggaccg cgcctgcgcc gtcctcttc agccggcggc cgggggcccc ctctctcca gctctcagt tctcatctcc ctatctgctc atcctctggt cgcacataat cgatgtttgg gcgtcccaa ccagaagttg acccatttc cgcactctac actggaggtt ttctaagggt ggtgcccgg ctattcggtt tttcctgcac tagaaccttg agaaaatgca gattctccgt cccaccagg ctattcggtt tttcctgcac taaaaccatg aaggtggggc ccagcagtcc acattctcg aagccgtca agtgattctg aggcgcctc cagtttgaga gctatgctca cggcctcac tccggcccgc gaggggcccg gtcttgcctg tggcgctagc cgcacacgga cacctcatc tggggggccc gccccccgc tgcaccctca ccgcccaacg cctcctccag gatgcgcac aggcgcctgg aagtcggaa ggtcaacatc cccctcagca tcttccctac cctcacggc cctcctccag gggtgcctca tggccagggg ttagaaaggg ccactgtgtt tcttgacat gaagtggcct aagaccttaa tgaaaactgc aggagtggaa tgacagaacc tttggtcat	52140 52200 52260 52320 52320 52380 52400 52560 52560 52680 52740 52800
ccgccagggg gcgagcgcga gccgccggg gctcgctggg agatgtagta cccggaccg cgcctgcgc gtcctcttc agccgcggc cgggggccc ctctctcca gctctcagt ccaatatcgcc atcctcatct cgcacatatat cgatgtttgg gcgtcccagcagtttg accccattt cgcacatatat acgatgtttg ggtgcccg cagcagctt cagcctcat tgggaacttg agaaaatgca gattctcgt cccaccag ctattcggtt tttcctgcac taaaaccatg aaggtgggc ccagcagtc aggagcccg aggagcccg gtcttgcctg tggcgctagc cgcacacgga cacttate tggggggccc gccccccgc tgcaccctca ccgccaacg cctctccgg gatgcaggagggccagggggggggg	52140 52200 52260 52320 52380 52440 52500 52560 52620 52620 52620 52620 52620 52680 52860
ccgccaggg gcgagcgga gccgcggg gctcgctggg agatgtagta cccggaccg cgcctgcgc gtcctcttc agccggcgc cggggccc ctctctcca gctctcagt ccaactatc ccaactagt acccattc cgacactaat cgatgttgg gcccaactaat cagacggt ttctaagggg ccaacataat cgatgttgg gctgccaa ccagaagtt ttcctaaggt ttcctaagggg cagacctg aagacctga aggagcccg tattagggg ccaagcagtc aaggagcccg gtcttgcctg tggcgctagc cagcagca cacatctagggggcccaagggggcccaactagggggcccaagggggcccaactaggaggccaaggggggcccaactaggaggccaagggggccaagggggggg	52140 52200 52260 52380 52380 52440 52500 52560 52620 52620 52740 52860 52860 52920
ccgccagggg gcgagcgcga gccgcgggg gctcgctggg agatgtagta cccggaccg cgcttgcgc gtcttcttc agccggcggc cgggggccc ctctctcca gctctcagt ccaactatc ccaactagtc acccattc cgacactata ccagaagtt ttctaagggg ggtgcccaa actggaagtt ttctaagggt ggtgcccaa ccagaagtt tttctggt tttcctgac taaaaccatg aaggtgggc ccagcagtc agtgattctg agacactta actggagagc ccagcagtc acattctcg tttccgcccac tccgcccgc aaggagcccg gtcttgccta tggcggctagc ccaccagga cacctcatc tggggggccc aaggagcccg gtcttgccta tggcgctagc ccaccagga cacctcatc tggggggccc aagtgggca ggtcaacatc cccctcagca tcttcccag gggtgccta tggcaagtgg ttaaaactga cacttagcg cctcctccag gggtgccta tggcaagggg ttaaaactga caccttagca tcttgagggc taagacctaa tggaaaactga tggaagcgg tggaaactgg taagaggga aggaaaggat ccagggagaa taaccaacc tggcaagttg tggcgccag gtagagggg gagcctagg taaggggaa cattttgg	52140 52200 52260 52380 52380 52440 52500 52560 52620 52620 52780 52860 52860 52920 52980
ccgccagggg gcgagcgcga gccgcgggg gctcgctggg agatgtagta cccggaccg cgcctgcgcc gtcctcttc agccggcggc cgggggccc ctctctcca gctctcagt cccaatatc ccaatatgg acccaattat cgatgtttgg gcgtcccaa ccagatgtgg acccaattc cgacactaa ccgaagtt tctaagggt ggtgcccgg ccagcaget cagcctcatc tggaaacttg agaaatgca gattetccgt cccaccag ctattcggtt tttcctgcac taaaaccatg aaggtgggc ccagcagtc aggagcccg gtcttgcctg tggcgctagc ccagcagtca aggagcccg gtcttgcctg tggcgctagc cccaccagga cacctcatc tggggggccc aggagcccg gtcttgcctg tggcgctagc cccaccagga cacctcatc tggcggggccc aggagccca aggagcccg gtcttgcctg tggcgctagc cccaccagga cacctcatc ccccccacaggagcccaccaccaccaggagcccaccacca	52140 52200 52260 52380 52380 52440 52500 52560 52620 52680 52740 52800 52800 52920 52980 53040
ccgccagggg gcgacgcga gccgcgggg gctcgctggg agatgtagta cccggaccg cgctgcgcc gtcctcttc agccgcggc cgggggccc ctctctcca gctctcagt ccaactatc ccaactatc ccaactatc cagacgtt cagcctcac accgacttc cagcactact cgcactatat cgatgtttgg gcgtccaa ccagaggt ttctaagggt ggtgcccgg ctattcggt ttccaactatc tgggaacttg agaaaatga gattetccgt ccaccagg ctattcggtt ttcctgaca taaaaccatg aaggtgggc ccagcagtc acattctcg tgggggccc acattctcg tgggagccc acattctcg tgggggccc acattctcg tgggggccc acattctcg tggggggccc acattctcg tggggggccc acattctcg tggggggcc aaggaggccg gtcttgcctg tggcgctagc ccaccagga cacctcatc tggggggcc aagtcgggaa ggtcaacatc cccctcagca tcttcccag gggtgccca aggcgcctca tggccagggg ttagaacatc ccctcatcagga cacttcatcggggggcccatcaacatcactacacta	52140 52200 52260 52320 52320 52320 52320 52320 52440 52560 52560 52620 52620 52620 528000 528000 528000 528
ccgccagggg gcgagcgga gccgcgggg gctcgctggg agatgtagta cccggaccg cgcctgcgcc gtcctcttc agccgcggg cgggggccc ctctctcca gctctcagt tctcatctcc ctatctgctc atcctctggt cgcacataat cgatgtttgg gcgtcccaa ccagatgtgg accccatttc cgcactctac actggaggtt ttctaagggt ggtgcccgg ccagcagctt cagcctcatc tgggaacttg agaaaatgca gattetccgt cccacccag ctattcggtt tttcctgcac taaaaccatg aaggtgggc ccagcagtcc acattctcg aagccgtca aggagcccg gtcttgcctg tggcgctagc cgcacacgga cacctcatc tgcgggggcc aagtcggaa ggtcaacatc ccgcccaacg cctcctccgg gatgcaggg cctcctccag gggtgcctca tggcacctca ccgcccaacg cctcctccgg gatgcaggg cctcctccag gggtgcctca tggccaggggg ttagaaagag ccactgtgtt tcttgacat gaagtggcct aagaccttaa tgacaacatc ccctcagca tcttccctac cctcacggc cttgaggggg tggcccag gtagaagggggggggggggg	52140 52200 52260 52320 52320 52320 52320 52320 52440 52560 52560 52620 52680 52740 52800 52800 52800 52980 52980 53100 53160
ccgccagggg gcgacgcga gccgcgggg gctcgctggg agatgtagta cccggaccg cgctgcgc gtcctcttc agccggggc cgggggccc ctctctcca gctctcagt atcctcatct cccagatgtgg accccatttc acccagatgtgg accccatttc cgacatata cgatgtttgg ggtgcccag cagatgttg accccattc cgacattta acgaaggtt ttctaagggt ggtgcccag ctattcggt tttcctgac taaaaccatg agaaaatgca gattctcgg ccagcagtca agtgattctg aggcgcctc cagtttgaga ccagcagtc cagcactaa cggcgcctc agggggccc acacacaga aggaggccag gtcttgccgg gtcttgccagagggggggggg	52140 52200 52200 52320 52320 52380 52440 52500 52560 52620 52620 52620 52620 52740 52860 52920 52920 53040 53160 53120
ccgccagggg gcgagcgga gccgcgggg gctcgctggg agatgtagta cccggaccg cgcctgcgcc gtcctcttc agccgcggg cgggggccc ctctctcca gctctcagt tctcatctcc ctatctgctc atcctctggt cgcacataat cgatgtttgg gcgtcccaa ccagatgtgg accccatttc cgcactctac actggaggtt ttctaagggt ggtgcccgg ccagcagctt cagcctcatc tgggaacttg agaaaatgca gattetccgt cccacccag ctattcggtt tttcctgcac taaaaccatg aaggtgggc ccagcagtcc acattctcg aagccgtca aggagcccg gtcttgcctg tggcgctagc cgcacacgga cacctcatc tgcgggggcc aagtcggaa ggtcaacatc ccgcccaacg cctcctccgg gatgcaggg cctcctccag gggtgcctca tggcacctca ccgcccaacg cctcctccgg gatgcaggg cctcctccag gggtgcctca tggccaggggg ttagaaagag ccactgtgtt tcttgacat gaagtggcct aagaccttaa tgacaacatc ccctcagca tcttccctac cctcacggc cttgaggggg tggcccag gtagaagggggggggggggg	52140 52200 52200 52320 52320 52320 52320 52440 52500 52560 52620 52620 52620 52620 52620 52620 52620 52620 52620 52740 52860 52920 53160 53160 531220 53220

-26 of 185-

gcaataaact	tgtcttttt	tttaaatat	actgcttgat	tctgtttgct	aatattttat	53400
		tgcaaaaatg				53460
taatgttgtt	tggtttcaga	atcaatgtta	tgctcacatc	ataaaaaatt	tggaaccgag	53520
gcaggaggag	tgcttgaggc	cagaagttcg	agaccagtct	aggaaacaca	gtgagacccc	53580
		aaaagaaaaa				53640
tctgaacaat	ttaaggagca	ttaaaattat	ctattctttg	aggtttgatc	atttcccagt	53700
taaaaatgtt	cctcccagcc	tgatgctttc	tttggggagg	gtaaatcttt	taaggctaga	53760
aaagtttctt	ctgtggcaat	tttattattt	acattttaaa	aattattcta	gagttaattt	53820
tgataaagca	tgtatttctt	aaaacaaatt	atccttttt	tccagatgtt	caagtgtatt	53880
tgcataaagt	tgaggaaagt	agtcttttgt	gaatctttta	acttctccca	aatatcttat	53940
tttgtgtatt	tttgcttctt	tattttgtta	acttttaaaa	gtgtatttt	ttttcaaaga	54000
atcagctctt	aggtttatgt	ttttggttat	actggagctt	ttttcttctt	ctttttaaaa	54060
tattttttct	cctttattt	ttagacgtat	tttgatctaa	cgtaatcgga	agaaggtaaa	54120
ttagaatctt	ttgttactat	tgtgttttta	tttctcctta	tttctctgaa	gtcctgcttt	54180
ataaatagta	ccatgttatt	tgtgcataaa	tattcatttg	tcttatattc	ttgggaattt	54240
		accttccttg				54300
aatttaactt	tgtctgatat	tttaccatcc	tgctgaattt	tgtttgttac	cccaaacaac	54360
ctttgctgtt	ttcgtctttt	ctgaaccctt	tattttaggt	aatcccttga	attagagcac	54420
		aatctgaaaa				·54480
tattcatgtg	acagctatat	tatgctgttt	catagccctt	ttggtccttt	tttcactctt	54540
gcattgcata	ttttgtgttt	attgtgtttt	gtgtttcttc	tgataatttg	gaaggtttgt	54600
atttttattc	agggagttgc	cttataatca	tactccgcaa	tacacatcgt	cctcagtttc	54660
ttcagactgt	ctgttaactc	cctattctga	ataaaaatga	cattgtaatt	tecetettt	54720
ttetttaeee	CELECTECE	cctcacctaa	tgtaaatgat	tttatccttc	tttagtattt	54780
gettttttaa	ttaactacat	ttataaatat	ctttatcact	tgatttttaa	atcagctttg	54840
aatgagatat	ttggatteet	agatataaaa	gatgttaatt	ataccatttc	cacgttagta	54900
taataaaatt	accatacatt	ctgctgtgta	topacattet	cacgtttgtt	ttagttecae	54960
aagggatttt	adaagactta	gaagtattat atgatcctgc	tttactet	tragecatag	tteteteccc	55020
gagtgtggtg	grygraager	gtaatcccag	gasttagas	caagaataat	ttatagagea	55080 55140
cttgaaggg	gcccacgccc	accaccctga	accettggga	gacaayayyt	agaaggaccg	55200
aattttaaaa	tttagggaaa	cgtagtggcg	totocctata	gagaccccgc	ctctacaaaa	55260
tgagggaaga	ggattgctag	agcccagaag	tttgaggeta	cactcacctc	tasttataca	55320
actocacccc	agtetgggca	agaaagtgag	aacctatctc	tttaaaataa	caataataac	55380
ttatgaaaat	tatattccct	gagtttttca	totttaaaaa	tatttattac	ctttatcctg	55440
taaaaqtttq	agtataaatt	cttgggttat	actttattta	ttgaagaatg	tataagtatt	55500
gtcttctaga	attgagtgtt	gctgtaatga	aaccagaagt	cagcctggtt	tatttttcct	55560
cagaaatgag	gtaattgccg	gccggacacc	gtggctcatg	cctqtaatcc	caacactttq	55620
ggaggccgag	acaggtggat	cacgaggtca	ggagattgag	accatcctqq	ctaacatggt	55680
gaaaccccgg	ctctactaaa	agtacaaaaa	gttagctggg	catagtagta	gacgcctgta	55740
atcccagcta	cccgggaggc	tgaggcagga	gaatggcgtg	aacctgggag	gaggagettg	55800
cagagagctg	agatcgcgcc	actgcactcc	agcctgggcg	acagagtgag	actccgtctc	55860
aaaaaacaa	aaaaaaaca	aagaagtgaa	gtaattgcca	tgatgctcca	agaattatct	55920
ctttgtctat	gaaatccaga	aatctcactg	ttatacattt	tggaattatt	attctgggcc	55980
		agattgactc				56040
acagagtete	actgcaatct	cagcttactg	caacctctgc	ctcacgggtt	caagcaattc	56100
tcctgcctca	gcctcccaag	tagctgggac	tacaggcgcg	tggcaccatg	cctggctaat	56160
ttttgtcttt	ttagtagaga	cagggtttca	ccatgttggc	caggctggtc	ttgaacgcct	56220
aacctcaagt	gatccacctg	cctcagcctc	ccaaagtgct	gggattacag	gcgtgagcca	56280
ccatgcccag	cctcaattcc	tctttctatc	tggtaatttt	tctgaagttg	aaaacatttg	56340
ttctaatacg	ttatttcagt	gttcttctaa	gatgtgtaaa	gcaccctatt	cccaggtcag	56400
ccccatctt	gctagtgagc	teggetggtt	cttcacaaga	gctctggttt	tctcctgctt	56460
aatctcaagt	acctetgtea	geeteeacet	ggtttatgat	ttggagtttt	ttggtttttg	56520
angatanat=	ccgacagagt	cttactctgt	tacccagget	ggagagcagt	ggcataatct	56580
tageteactg	taggerere	ctcccaggtt	ryaycgattc	tcctgcctca	gcctactgag	56640
taggggggt	cacaygegeg	tgccaccaca	ttgaactaat	cctcgtattt	tragtagaga	56700
cctcacccta	ccatguigge	cagggtggtc gagattacag	acatanasas	gacctcaggt	aatccacctg	56760
agttttaatg	totactttta	ataaagatag	tacttatata	tatatttatt	atattatta	56820 56880
gtactcttcc	gtaatttgt=	agatececat	atctaceces	gaagtccatt	ttosattott	56940
ttetteagae	totttattt	attttattt	attttattt	tatotttoac	atomactoto	57000
actatatese	ttctggaggc	tggagtgcag	tagcacaata	traggtract	acggagecce	57060
teteceggat	tcaagcaatt	ctcctgcctc	agcetecera	ataactaace	ttacaggcac	57120
				レーニン・・ココンは .		

-27 of 185-

ctqccacttt	ttaattttt	tagagacaga	atctcacttt	qttqaccaqq	ctagaataca	57180
	catggctgac		_			57240
	agtagctggg					57300
	acagggtctc					57360
						57420
	acctcagcct					
	actactttaa					57480
	aagaatgaaa					57540
ctgagattat	ttctgggaaa	gcaggagata	cggtcaccct	acttatagtg	tgcttgtctt	57600
tggattgttg	aatttggagt	ttctatttgc	aggcttattt	caactgggca	gccttgatcc	57660
gccctgccca	gcaatgctac	cgttctctcc	accgggtctc	tgggacccct	tcagtcacta	57720
					tectgeetea	57780
	cgtcttccgt					57840
	ctgattccag					57900
	ttctgtccct					57960
	gtaaattttg					58020
	tgtggtgcaa					58080
					gcaccaccac	
	tttttttat					58200
	cctgacctcg					58260
	actgtgccca					58320
	ttacagtgct					58380
	aaaatccaaa					58440
atactcactg	acccccaata	aaataaaatt	agaaattaac	cacaacttaa	caaaataaag	58500
	agagaggaaa					58560
	aatcccagca					58620
	cctggccaat					58680
	gatgtgtgcc					58740
	gagacgaaga					58800
	gagactccat					58860
	tttttgagac					58920
	caccgcaacc					58980
	aggattacag					59040
	tttcaccatg					59100
						59160
	gcctcccaaa					59220
	caacatgagg					59280
	cgtgggagga					59340
	tgtctctatt					
ttcaacatga	aaagtatctc	ccaaaccccc	cgagatgttg	gcaaaaagcg	acccaaagga	59400°
	ctgtgtgtga					59460
	tcccaacact					59520
	tggctaacat					59580
					ggtggatcac	
	gggtttgaga					59700
	tagctgggcg					59760
ggcaggagaa	tcgcttgäac	ccgggaggcg	gaggttgcgg	tgagccgaga	tcgcaccact	59820
acactccagc	ctgggcaaca	gcctgggtga	cacagtgaga	ctccatctca	aaaaatacaa	59880
aaaattagct	gggtgtggtg	gcctgcgcct	gtagtcccag	ctacccggga	ggctgaggca	59940
ggagaatgga	gtgaacctgg	gaggaggagc	ttgcagtgag	ccgagatccc	accactgcac	60000
tccagcctgg	gcgacagagc	aagactcttg	tctcaaaaaa	aaqaaaaaaa	aaggaaaaaa	60060
	aataaagaaa					60120
taattaataa	aggcagaagt	taaaqqqaqq	atgataaagc	aattttttt	attagtittt	60180
	gtcttgctct					60240
tgcaacctct	gcctcccggg	ttcaagcaat	tetectacet	cagcetecta	agtagctggt	60300
	cgcgccacct					60360
	gttaggctgg					60420
tctcaaagtg	ctgggattac	addcaddcdc	caccacacat	gaactagaa	aaaatattaa	60480
ttctatacee	aaggtcaata	-3333-36	acotttacaa	actoomage	gcacccattc	
	gtctggagaa					60600
tttacttact	aaaaatccta	ctatottoct	attanantt	atatatat+	ctctctctct	60660
						60720
	ccagaaaagc					
	ccttagcctc					60780 60840
aycatttaag	agtgaacctc	todecceeeg	cacyggcaaa	accacccacc	cacayaattg	
ugeceeaatt	ctgcgtcctc	LCCECECACC	arygatggac	ggtccaggct	ccgayccaaa	60900

-28 of 185-

gccaggcctc	ccctggagct	ctggatccac	cacctgcagc	ttctcaggca	gggccccagc	60960
agctcccctg	ctcccttgta	ccatcaatcc	ctccctcac	tgggtcactc	ccaacaatat	61020
atatatttag	tgatgtttct	cccatgtggt	aaaatcactt	agcctctctc	ctccccagc	61080
tactatccta	tttgtttctt	tccattctct	gcaaaacttc	tcaaagcatt	gtgtctatgt	61140
gctgactcca	tttatcttct	cccattctct	gctgagtcct	tcccacagac	tetcacecca	61200
gttactccat	gaaatgacct	ctacactacc	acatccaatg	gtgaatgttc	agttcttaat	61260
tttattcagt	ctttcagcag	catttgacct	aaccastcsc	tecetettet	taaaaatact	61320
					ggccaaggcg	61380
			tcagcctggg			61440
					atctacttag	61500
gaggetgagg	cadadagta	acttgaggg	ggcatgcac	agetageeee	acceaticag	
gaggergagg	cagcaggacg	actigageet	gggaaatcaa	ggetgeagtg	agecatgatt	61560
gcaccaccgc	accedageee	gagigadage	gagaccccgc	cccaaaaaga	caaaatagga	61620
aacttttccc	agcatattcc	tetgattete	ctgctgcttc	tgtctgcaca	gattcagtct	61680
cccttgeegg	ttettette	ceceetgat	ctettgacet	tgaagtgeee	cagagtacag	61740
CCCCCCCCC	tttttttgag	acgcagtete	gtctgtcacc	caagctggag	tgcaatggcg	61800
aggtctcagc	tcatgcaacc	rcrgccrccr	gggttcaagc	gattctcctg	cctcagcctc	61860
ccaagtagcc	aggactacag	gcacatgcca	ccatgcccag	caaattgttg	tatttttagt	61920
agagacaggg	ttttactata	ttggccacgc	tggtctcaaa	ctcctgaact	cgtgaaccac	61980
ccgcctcggc	ctcccaaagt	gctgagatta	caggcatgag	ccaccacacc	cggcccagag	62040
					ctcctgcctc	62100
atggctttaa	ataccatcgg	tagactgatg	actcccatat	ttctctttt	tttttggaga	62160
			tgcagtggcg			62220
ctccacctgc	caagttcaca	ccattctcct	acctcagcct	ctccagtagc	tgggactaca	62280
ggcacccgcc	accacgcctg	gctaattttt	ttgtattttt	agtagagatg	gggtttcacc	62340
atgttagcca	ggatggtctc	gatetectga	cctcgtgatc	caccatete	ggcctcccaa	62400
agtgctggga	ttataggtgt	gagecaccgt	gcccagccga	tgactcccat	atttctatct	62460
cttqctqtqt	gggagttete	ctcagaactc	catactcata	aatccaactc	tcataaatag	62520
			aattcctact			62580
cctgcagtct	ccaccatctt	aatotccaat	ctaacattag	gagggaaaaa	ctttgaagtc	62640
attettgact	cttctctatt	acacacccta	tccaatcttt	ctgcagatcc	agtegacece	62700
caaatccagt	tageteteat	catctcccct	gttaccccct	gatecagaee	atcttcctct	62760
ctcacctgaa	tcactgcagc	attetectea	ctggtctctt	taattetatt	ttcactccac	62820
cttagcatag	tetecacaga	gcagtcagag	ggatcctttt	aaagtgtaat	teccateeta	62880
			tcccgtttta			62940
gagtetttee	agtgacctac	atgatetgee	tattatcacc	tecegetaga	ttccccttcc	63000
tcactccact	ccagetetae	agctgtcctt	tetgttteet	daacadcccc	gattttggtt'	63060
ctttagaacc	tttatattta	ctatececte	tatataaat	gaacagccca	gaagtcacct	63120
gactatata	tacacttcct	tectaseese	catgtttaaa	antanatana	gaagecacee	63180
ggccccccc	agtagetese	acctateeta	ccagcacttt	aaccacccaa	acacactcca	63240
tasastasaa	targaretta	geeegeaace	teageactet	gggaggccaa	ggtgggtgga	
ccaccigagg	ataggagee	gagaccagcc	cggccaacat	ggtgaaaett	cgtctctact.	63300
acadacaca	acagcagcca	ggtgtagtgg	cacacacctg	taateteage	tactcaggag	63360
gergaggeag	gagaateget	cyaacccaga	aggcagagga	ggtgcagtga	gccaagatca	63420
egecacaaca	ccccagcetg	ggcgacagag	caagacccca	tctcaaaaaa	aaaaaaagaa	63480
aaaaaaatta	cacaaacaca	stanta	tattcctttt	ccaaguttta	tttttttttt	63540
gaatacttta	cattgutta	tastassta	tccgtttccc	cccaactaga	atggatactt	63600
cetgeaggta	ggeactetag	coccedate	caagtactaa	ccaggctcaa	ccctgcttag	63660
cttctgagag	caggggagat	caggeergee	cagggtggta	tggcccagga	attttgattc	63720
egetttatte	attgetgtte	tgttgattet	cttttgttcc	tcctcctagt	gctgagaaca	63780
ctacttgtac	ataataagca	ttcaataaat	atttgttgaa	tgaatgactt	gttgaatgaa	63840
ttaatctcag	aaatgcagga	ctggttctac	attagaaaat	ttttcaaggt	cattctctgt	63900
			gtactctaaa			63960
tgatttctgt	tttcaaaaac	tcttagtggc	tgggcgaggt	ggctcacatc	tataatccca	64020
gcattttggg	aggacgaggt	gggcggatca	cttgaggtca	ggagtttgag	accagcctgg	64080
ccatcatggt	gaaaccctat	ctctactgaa	aatagaaaaa	ttagccgggt	gtggtggcgc	64140
atgcctgtag	tcccagctac	ctgggaggct	gaggcaggag	aatqqcttqa	acccqqqaqq	64200
cggaggttgc	agtgagccaa	gatcatgcca	ttgcactcca	gcctgggtaa	cagagtgaga	64260
ctccatctca	aaagaaaact	cttagtgagt	ttaggaatcc	aaqqaaqacc	ctcaaactaa	64320
atagataatc	tagctaccag	aagccttcag	taaaccttaa	cactccatgg	tgaaacatta	64380
gaaacattcc	tactaaaaga	caggctaaga	atgcctgcaa	tcttcacggc	taqtccaaga	64440
agtcaaaaag	aagaaatgag	cgctgattta	aaaaaataaa	caaacaaaaa	actaccgatg	64500
cagaggctgg	cagcaaggac	tgaaggactg	tacagtactt	gcctggagca	ggcggatggc	64560
cacacccctq	cgaagcctqc	tcagctggct	ggggacgct	ccaqtatata	agtggcagga	64620
tgcagggtac	ttcctctgcc	agggagttgc	actggggaga	tcctcccca	ctcacacttt	64680
	_		J_JJ			

-29 of 185-

ggcagctggg	gctttggaat	gtgacttagc	ttctqtcaaa	gggtcaatcc	accetttgat	64740
atatgatgca	aaggcgaaca	tatgatgcaa	aggtgagaga	acadeceaaa	ttaggacttt	64800
taccacacac	atassasataa	- 2020003030	taataaaaa	taggeocaaa	tttastasta	64860
caccacage	gragaggragg	acagcgacag	ragragaccc	Lygoragaci	LLLCALGULU	
aaaggtggtg	gttgttcttc	ctacttcttg	teeeteeagg	getteetttg	cctgtgtgct	64920
					taattaaaac	. 64980
aaattttgaa	aactgtctga	acctgctttt	gaaccctgct	atgatttgaa	tgtttgtccc	65040
ctoccaaact	gattttgaaa	cttaatctcc	aaagtggcaa	tattgagatg	gggctttaag	65100
		ctctgacctc				65160
atacaactaa	actacgagag	tttataagag	acgageggae	caacggacca	acgageegee	65220
CCCCTTCACC	atttgatate	ttacactgcc	taggggctct	gcagagagtc	cccaccaaca	65280
agaaggctct	caccagatac	agctcctcaa	ccttgtactt	ctcagcctct	gtaactgtaa	65340
gaaataaatg	ccttttcttt	atgaattacc	cagtttcaga	tattctgtta	taaacaatag	65400
		ctcatgattc				65460
		ttggccaggc				65520
ttaggedaag	asaacsaata	gatcacaagg	traggagate	angeonated	taaataaaa	65580
ccgggaggcc	gaggcaggcg	gaccacaagg	ccaggagacc	gagaccaccc	Lygccaacac	
ggtgaaaccc	egtetetaet	aaaaatacaa	aaaaattagc	radacaraar	agrgggrgcc	65640
		aggctgaagc				65700
gagcttgcag	tgagtcgaga	tcgtgccact	gcactccagc	ctgggtgaca	gaatgagact	65760
ccgtctcaaa	aaaaaagaga	gccagagttt	atttctgttg	cttgcaacca	agaaatctgg	65820
		taaataatag				65880
		ttgtggtaat				65940
atactaceae	cactaacaat	acaaaaatgg	agaccaata	taataaataa	cacctataat	66000
cccagcaccc	tgggaggeeg	aggcaggtag	accaccigag	greaggaget	cgagaccaac	66060
ctggccaaaa	tggtgaaacc	cctactctac	taaaaataca	aaaaattagc	tgggggtggt	66120
ggcggacacc	tgtaatccca	gctactcgtg	agactgaggc	aggagaatca	cttgaacccg	66180
ggaggcagag	gttgcagtga	gccgagatcg	caccactgca	ctccagcctg	ggcaacaaga	66240
gcgaaactcc	acctcgaaaa	aaaaaaaaa	aaaaaaaqaq	aaccaaaact	gggcgcagtg	66300
		cactctggga				66360
		acatggtgaa				66420
tecagagaga	ataacacaca	cctctagtcc	cacctacttc	acsacatasa	acadadaced	66480
cccgggcgcg	geggegeaca	agettagee	cagccacccg	ggaggetgag	gcaggagaac	
cycligaacc	cyggaggcag	aggttgcagt	gageegaaat	catgccactg	cactccagec	66540
LyggLgacag	agegagaece	cgtctcaaaa	aaaaaataaa	aaaaaaaaaa	gaattcaaaa	66600
attgtagagt	tatagtgtgc	ttctagttta	gttgagagga	catctgtcct	tcaaggaagg	66660
ctagaatcta	taccctgagt	ccttactgaa	atcaatccag	cagtcaaaac	atgggaccaa	66720
cgatcacagc	agtaagatag	gaagagcacc	tttgtacatt	tagctcatgt	tgagataagc	66780
cactgacaga	gctgaaggaa	gctcacagtt	ctgggttcca	tcctttggca	tttaaaaaga	66840
aaagtgctaa	gaaaattcgg	ttggtcacgg	tggctcacgc	ctqtaatccc	aacactttga	66900
		acgaggtcag				66960
aaaccccatc	totactaaaa	acagaaaaat	tageegggea	taataacaca	tacctataat	. 67020
cccacctact	cagaagacta	aggcaggaga	2ttaatta22	233233234	cgoodataac	67080
cccagccacc	caggaggeeg	aggeaggaga	accycligaa	cccgggaggg	ggaggttgta	
gegagegaga	geaggecaet	gcactccagc	ctgggagaca	gagcaagact	ctgtctcaaa	67140
aaaaaaaag	aaaaaaagaa	agaaaggaaa	aaaagaaaga	aaaaaaaga	aaaaagaaaa	67200
ttcaggccag	gccaggcctg	gtggctcaca	cctgtaatcc	caacactttg	ggaggctgaa	67260
gcgagacggt	gccttagccc	aggagtttga	gaccagcctg	agcaacatag	cgagaccctg	67320
tctctataaa	aaaaaatttt	tttttggcca	gacgcagtgg	ctcacqcctq	taatcccagc	67380
actttqqqaq	gccgaggcag	gtggatcacg	aggtcaggag	atggagacca	tectogetaa	67440
cacootgaaa	ccccatctct	actaaaaaat	acaaaaaatt	aaggagaaa	aataacaaac	67500
acctateate	ccacctactc	gggaggctga	acaaaaaaaa	tagagtassa	226225556	67560
goodgeagee	tanagagaga	ttgggggggg	ggcaggagaa	cggcgcgaac	ccgggaggcg	67620
gagerracag	Lyageegaga	ttgcgccact	gcaccccaga	ctgggagaga	grgagaeree	
gccccaaaaa	aaaaaaaaa	aaaaaaaat	taattgtcag	gtgtgctggc	atgcagctgt	67680
agtcctagct	actcgggagg	ctgaggtaag	aagatcgctt	gagcccagga	gttcaaggct	67740
gcagtaatag	tgcctctcac	tctaccctgg	gtgacaatga	gaccctctct	caaaaagaaa	67800
gaaaaaaggg	aaagaagaaa	agaaagaaag	aaagagaaga	aaqqaaqqaa	qaaaqaaaqa	67860
		agaagaaaaa				67920
aaagaccaaa	gggtcaggat	cccaaaatag	tttttatatt	ttatttattt	atttacttat	67980
ttatttttca	dacadtated	ctctgtcgcc	caccetacac	tagaataata	coattoccac	68040
toacteringa	at case a cate	gratarest-	cayyetyyay	-bases-t-	cyattycyyc	
ccaccgcage	cccaaactg	ggctcaggtg	geeceecae	cccagcctcc	cgagtagetg	68100
ggaccacagg	cgcgtgccac	catgcccagc	taatttttta	attctttgta	gagatgaggt	68160
ctctatatgc	tgcccaggct	ggtctcgagc	tcctgggctt	aagccatcca	cccgcctggg	68220
cctcccaaag	tgctgggatt	acagaagtga	gccaccgcgc	ctaatcgggt	ggtttgtttg	68280
tttattgacg	gggtctcgct	gctgcccagg	ctggagtgcc	agtggctgtt	cacaggtgca	68340
gtcctggagc	attgcatcag	ctcttgggct	ctagcgatcc	tccagagtag	ctgcagctgg	68400
gattccagge	gcgccaccgc	gcggggctca	gaatgggttt	ttatattgag	agttatacte	68460
	5 5		5 255500		5555-05	

-30 of 185-

ccacctagag	gatatatgta	gtaccgaact	gtgtgcgcag	ggaggctgag	gttgcagtga	68520
gccaagatga	tgccagggca	ctccagcgtg	ggtgacagag	caagatttca	tctcaaaaaa	68580
	aaaaaaaaa					68640
	gcagtattaa					68700
	gaacggataa					68760
	gaataaaagg					68820
	tgggtggatc					68880
	tctctactaa					68940
					ccggaggttg	69000
					actccatctc .	69060
	aacaaaaaat					69120
	gatgttgact					69180
	ttaacttcac					69240
	catctccatg					69300
	gtctgactgc					69360
	agacctcacc					69420
	gtctgggtgt					69480
	ggatttcctc					69540
	cccagctccc					.69600
	gtcttttact					69660
	cccaggtaat					69720
						69780
					tgcagagaac.	69840
	ccaggaatca					69900
_	ttggtagagc					69960
	ggtgatccct					70020
	cccggacttc					
	cctgctggga					70080
	gaaagatgaa					70140
	acgtttacaa					70200
	cacatagact					70260
	gttatgtaaa					70320
	atgagtgggc					70380
	cagatctgat					70440
	ctgagcctgt					70500
	cctcacgcct					70560
	agttcaagac					70620
	tagccgggca					70680
	actgctagaa					70740
	cctggccgac					70800
	ttgagataat					70860
	ttggtctaat					70920
	ggacttccta					.70980
	agaggagttg					71040
	ctctgtcacc					71100
	caggttcaag					71160
	cccggctaat					71220
	tcgaactcct					71280
	atgtgagcca					71340
	gctgcaagat					71400
	atgaggcaaa					71460
	atttaatgaa					71520
	tatcatttta					71580
	aacgcattaa					71640
	agaggactga					71700
	caagttaaat					71760
	atgaaatcag					71820
	gattaagttt					71880
	agtgatggtc					71940
	aaagtgaggg					72000
	ttgtttttta					72060
	actgcaacct					72120
	ggactacagg					72180
gaggtggggt	ttcaccatat	rggrcaggct	ggtctcaaac	tcctgacctc	aggtgatcca	72240

-31 of 185-

cccgcctcgg cctcccaaca tgctgggatt acaggcatga gccactgtgc ccaaccctt 72300 ctagetttet tgateactga ttetagggtt etetgetgaa atatatttga gacateetgg 72360 ataaaagatc atgcaagagc tcccaatatg gtattaataa ttgattctgg aggcttagct 72420 actectgatg gattagacat gacteaactg ectetettat gtgtacaaca caacaacaca 72480 accaagaaag gttattctgg cattccattt attcagttta tttacagccc ttacttccag cagcacgtta aagatatggc cagggccggg tgcagtggct caagtctgta atcccaggac 72540 72600 tttgggaggc caaggtgggc ggatcacaag gtcaggagtt tgagaatctg gcaattcttc 72660 agacttagaa gcaaccagct cgataacaca gtettgtgtg ggeteteeet etgteeetee 72720 ctegettece teatttetea teeetgeece tgagactgtg cacetteaca tagecetgee 72780 atgagacett cateteagge tttgetttet ggggtaactg aggetaaaca etgagtggee 72840 ctaaaagagg attgggattt ggaagttaga ttattcacca gagaacagac tttgctgatg 72900 atcaggccca ggttgtaatt gttgaaaaaa agagaggatg catagtctta tctcatctcc 72960 tagtcaaagt caacaccatg ataaataaga gtcaaatcct gagatgtgaa ttggggacat 73020 ttgagtggtt aaccetgaga agettgeace tteagacece teaatacece tgeteeceag 73080 agaaggctgg acattgacct cagcacaggc aggagccctg caagatgcca titgtcctac 73140 taaagatgga cccctccact ctgtttctag gtaaataacc aaagtcaagt ctccacacag 73200 cctgagcaag aaagtcagag cctgctacag gagaaaatac cacactggcc aaaggattca 73260 ctagccctgg ccactgtgtg tgggaggaac cagggaatca tgtgtgggag tcaatgttga 73320 agetgttgga etgggggtgg ggtggaatat aageetggee etggggagtt ttteeegttt 73380 gagggccttt acccacaact caagatccag tgctatagca ggagatccca gagctagtcc 73440 taacagatgg tcaggattga acttggccta gagtaaaatg aggaggatag tgccagaact 73500 ttctcaacat actattgagg aagaggtcag aaggcttaag gaggtagtgt aactggaaag gggtcctgat ccagacccca ggagagggtt cttggacctt gcataagaaa gagttcgaga 73560 73620 cgagtccacc cagtaaagtg aaagcaattt tattaaagaa gaaacagaaa aatggctact 73680 ccatagagca gcgacatggg ctgcttaact gagtgttctt atgattattt cttgattcta tgctaaacaa agggtggatt atttgtgagg tttccaggaa aggggcaggg atttcccaga 73740 73800 actgatggat ccccccactt ttagaccata tagagtaact tcctgacgtt gccatggcgt 73860 ttgtaaactg tcatggccct ggagggaatg tcttttagca tgttaatgta ttataatgtg 73920 tataatgagc agtgaggacg gccagaggtc gctttcatca ccatcttggt tttggtgggt 73980 tttggccggc ttctttatca catcctgttt tatgagcagg gtctttatga cctataactt 74040 ctcctgccga cctcctatct cctcctgtga ctaagaatgc agcctagcag gtctcagcct cattttacca tggagtcgct ctgattccaa tgcctctgac agcaggaatg ttggaattga 74100 74160 attactatge aagacetgag aagceattgg aggacacage etteattagg acaetggeat etgtgacagg etgggtggtg gtaattgtet gttggeeagt gtggaetgtg ggagatgeta etaetgtaag atatgacaag gtttetette aaacaggetg atcegettet tattetetaa 74220 74280 74340 ttecaagtac caccecege etttettete etttteete tttetgattt tactacatge 74400 ccaggcatgc tacggcccca gctcacattc ctttccttat ttaaaaatgg actggggctg 74460. ggcgcggtgg ctcatgcctg taatcccagc actttgggag gccgaggcgg gcggatcatg 74520 aggtcaggag atcgagacca tcctggctaa cacggtgaaa ccccgtctct actaaaaatg 74580 caaaaacatt agccaggcgt ggttgcaggt gcctgcagtc ccagcggctc aggaggctga 74640 ggcaggagaa tggcgtgaac ctgggaggtg gaggttgcaa tgagccgaga ttgtgccact gcactccagc ctgggtgaca gagcgagact ccgtctcaaa aaaaaaaaa aaaaaaaaa 74700 74760 tagetgggca tggtggcgeg tgcctgtaat accagetaet etggaggetg aggeaagaga 74820 ategettgaa eecagtagge ggaagttgea gtgageegag atettgacae tgeacteeag eetggtgaca gagtgagaet etgteteaaa aaaaaaaaa agaaaaaaa agacagaaag 74880 74940 aaagagcaca gacagagtca caggtatttg cagtaggaag ctgtcaggtt agagtgcacg 75000 gaaatagaaa gtatatttta cacttacagc acatcttcgt ttgattagcc acatttaaaa 75060 tactgaatag caacgtgtgg ctatttagta ttcactaaaa tcttggacag tgcaagtcta 75120 aagaateett gateegteeg geatggtgge teaegeettt aateeeagea etttgggagg 75180 ccaaggtgga aggatcactt aaggtcagga gttcgagacc agcctggcca acatggtgaa 75240 acctcgtctc tactaataat acaaaaaaaa ttagccgggc atggtggtgc atgcctgtaa 75300 teccaggtae ttgggagget gaggeaggag aatagettga atccaggagg egetgeagtg 75360 agecgagate atgecatgee actaetgeae tecageetgg geaacagagt gagaetgtet 75420 caaaaaaaaa aaaaaaattg ttgggcgtgg tggctcacgc ctgtaatccc agcactttgg 75480 gaggctgagg ggggtggatc acctgggttc tggagttcga gaccagcctg gccaacatgg tgaaacccca tctctactaa aaatacaaaa attagctggg cgtggtggtg ggcacctgaa 75540 75600 ateteageta eteaggagge tgaggeagga gaatttettg aacceaggag geagaggttg 75660 cagtgageca agategegee tetgeactee atectgggtg geagageaag actatgtete 75720 aaaaaaaaa aaaaaaatac ttgattgtct ggacattctg cagaacatca tatggagaca 75780 ctatgttgac gacatcatgc tgattgtaag caagaaatgg caagtgttcc agaaacacag 75840 tcaagacaca tacatgccag aaggtgagat ataaactcta ctaagattca gtggcctgcc 75900 acactggtga catttttaaa cctgctagat gtttgtgtag aaaaggattt aaccttgccc aaagaggggt ctggcctttg tccccagcta ctggacataa tctctttaaa ctcttgaaat 75960 76020

-32 of 185-

atcattcctg	atagaagtat	ttttgttttg	actaggggcc	ttgggccagc	cagatagcaa	76080
caatqtqatc	tgggttgggg	gctttggatc	aggtggcatc	agtgtgacct	cctgagtggc	76140
	aatcaaccac					76200
agactttgga	cacaagggct	tagataaact	ttcctaatta	gcaatgctct	atactgggaa	76260
acceattete	actccatagg	gagaggacaa	ctggatattc	tcatttggta	cetecetaga	76320
ctttgcccta	tgcatttttc	ccttgtctga	ttattattat	tattatgaga	togaatctco	76380
	caggctggag					76440
ccaattcaaa	cgattttcct	atctcaacct	ccccaataac	tagasatsas	ccccgcccc	76500
accacaccca	gctaattttt	######################################	agtageage	accette	ttaggarage	
taatataaa	ctcctgacct	catatteece	agragagacg	gggttttacg	ccagccagga	76560 76620
catototoac	ccaccgcgcc	cacgcccctt	gastastast	taaagt	gctaggaata	
tartaaatta	taaccgtgaa	tataacacat	tttagtgactat	tttatasaa	attatagetg	76680
attatcaaac	ctaaggatag	cattagggg	cccagigagi	anattaata	teresanta	76740
gatactaat	gtgtgtacca	tacastataa	ttttataatt	gcagriggig	ccagaaataa	76800
ttattacccc	ttacactcaa	totttatto	catttataca	aattaactt	cacaacttta	76860 76920
	agactttcta					76920
	ttttttaaa					
	ttgtgggtac					77040
gatagagaga	tagaatataa	gragragara	tacycaccca	togagiacai	gagatgttt	77100
gacacaggca	tgcaatgtga	gazaggaca	anttagagaa	tygggtatee	tttaaaatat	77160
gcaatttatt	cttcaagtta	tagacaaccc	aattacactc	tttaagttat	tttaaaatgt	77220
tttttaact	ttgtattgac	tagagicaci	ergrigiger	accaaatata	acceceee	77280
tarattarat	agagteteae	ctagtggccc	agactgaaag	tgcagtggca	caagetegge	77340
	ctctgcctcc					77400
cotttt	ggcacacacc	accargecea	getaatttt	atatttttt	agtagagacg	77460
ggttttegee	atgttggcca	ggetggtett	gaacteetgg	cctcaaatga	tctgaccacc	77520
attatttaat	aaagtgctag	gattacagge	argagecace	acacctggcc	aaaacagaac	77580
attatasaat	gaggtctgct	tgaratagar		ttttgagaet	gagteteget	77640
gregerage	tgggctggag	ggataagga	cgateteage	teactycaac	ctecacetee	77700
ccaccacaca	caattctcct	ttetattt	octaagtage	cgagagatta	caggeaceca	77760
gastastata	cggctaattt	catagaatag	teasagaaacg	ggggtttace	gracinggeea	77820
ggctggtctc	gaactcctga atgagccacc	acccacacaca	aatttttaa	attttatat	aaagtgetgg	77880 77940
tttatatatat	ctttgaaata	tatttttat	ggatataaaa	ttattaatta	gaaaccctac	78000
tcattattat	tattattttg	agacagggtc	tcactctatt	acctatacta	gggtgtacta	78060
atgtgatctc	ggttcactgc	agacttgacc	tectagget	caratratet	teccacetea	78120
acctccctaa	tagctgggac	tacadataca	toccaccata	cccaactaat	ttttctattt	78180
tttgtagaga	tgaggctttg	ccacatttcc	cadactaata	tctaactcct	gaggtgtagg	78240
aatccaccca	ccttggcctt	acaaagtgct	agaccataac	tacccaccec	ttacttttta	78300
taggatattg	aatatttaat	atgaatcttc	tagcatagac	tateactatt	taaaaaatca	78360
actatttact	tggcactctt	tttttttt	ttttttta	ascaractet	tacactata	78420
cccagactag	agtgcagtgg	catastatta	actcactaca	ageteteect	cacacattce	78480
caccattete	ctgcctcagc	ctccggagta	actaggacta	ageceegeee	ccaccaccc	78540
cggctgattt	ttttgtattt	ttcgtagagt	tagaattta	ccatattaac	cadatagta	78600
tcgatctcct	gacctcgtga	tetatecace	teggeeteee	aaagtgctgg	caggatggcc	78660
gtgagccacc	gcgcccagcc	tetttttt	ttttttttag	acqqaqtctt	actctgtcat	78720
ctaggctggt	gtacagtggc	gtgatctcag	ctcagtgcaa	cctccacctc	ctgcctcage	78780
ctoccaaata	gctgggatta	caggtgcgta	ccatcacocc	cooctaattt	ttgtattttc	78840
agtagagatg	gggtttcacc	atottagaca	gactagtete	gaactcctgg	cctcaagtga	78900
tctacctacc	ccagcctccc	aaagattaca	ggcatgagcc	accocaccca	accaagtage	78960
actcctttga	aggtaatctg	cttcccctac	ccctagcaat	ttttaacaat	ttttcttcat	79020
ttttatttcc	tgaagttttg	ttattaataa	tctatataca	gatttctttg	tatttcttt	79080
atttacaatt	catagtgatt	cttgaattag	tatattaatt	tctattatca	ccacaggaaa	79140
attotcagec	gttagctttt	caaatatttc	cttgctaaat	tetetettet	cccctttcaa	79200
tacaattgat	ttgattaaaa	ctaaaaccag	aaccaaatac	agtgactcat	acctataata	79260
ccaacacttt	gagaggctga	gacagataga	tcacctaage	tcaggagttc	aagaccagcc	79320
tggccaatat	ggtgaaaccc	cotctctact	aaaaatacaa	aaattaccac	acatagtage	79380
acacatttot	agtcaggagg	ctgaggcagg	agaattgctr	gaatccagga	aataasaatt	79440
gcagtgagct	gagatcccac	cactgcagtc	taacctaaac	gacagagtga	gatgagaatc	79500
tatctcaaaa	aaaaaagtta	tgaatgtttg	ataaactata	tttattaga	tattattat	79560
agaatactat	tcattgattt	ttaaacaato	ttagattaaa	ccattcactc	gatttgtgat	79620
aattaactta	ctgattttac	ctcactcatt	tattataat+	aatacaacto	grataaaaag	79680
actqtqacqa	ggccgggcat	gatageteee	gcctataatc	ccagcacttt	aggaagactaa	79740
ggcaggcqqa	tcacctgagg	tcaggagttc	aagaccagc	tgaccaacat	ggtgaaaccc	79800
				Jacouatal	2202222000	000

-33 of 185-

catctttact	aaaaatacaa	aattagccgg	tcgtggtggt	gcatgcctgt	aatcccaqct	79860
cttcgggagg	ctataacaaa	agaatcactt	gaacccggga	gatagagatt	acaataaacc	79920
gatatogogo	cattocacto	cageetggge	aacaagagcg	aaactccgtc	taaaaaaaaa	79980
			actgtgacgg			80040
22tt222662	agtactacta	2222++22++	ttatcttaca	tetasaetas	antenettta	80100
Lydagttaat	ccagaaatac	aatgeagggt	attagtttgc	cacagergeg	tattcagcct	80160
aatgtaatat	tettgttatt	tttaaattct	tcttttaact	ttactcatat	gtggatcatc	80220
aaatttcaaa	agattaaatg	acaatactct	tagcagcaag	cttccctaag	catataaaca	80280
ttttaatggg	tgatgattca	gaaggtaccc	gaagaatatg	tactgccaga	tatcattcac	80340
ccccatatac	ctgcccgaca	gacatcccat	tttgggaccc	togataaato	tataaataa	80400
gagaaagata	ggagaaagtg	gtataagcaa	atggctttgg	agtctgattg	acagcgattg	80460
			tgatcctaca			80520
aaccccatct	gtaaattggg	aattacasta	gcagccatct	cadgeddect	cttttccccc	80580
3300000000	attataggg	agetgegatg	gtaattgtaa	cacagggccc	cccccgggg	
aagggcagga	accacygacc	aagugaguua	graarrycaa	agcacttaat	acaaggaggg	80640
cycataataa	gracultata	aacaacgacg	gccattatca	tgactgaggt	gratgeager	80700
			ggtgggcagg			80760
			cacagactgc			80820
			gtcctccgcc			80880
tcccgtgcca	gagacattca	ggggatttct	cgcactctcc	cctccctac	gtccctcccg	80940
ccccatccaa	ctaaccacac	aacacataca	aaatagcccc	tgcgaggttc	tgcacgctgg	81000
aaqqqaacaq	gagaaggggg	ctacactttc	ttgctgatgc	cctgtacttg	aacccctaat	81060
			gagaaatccc			81120
			ggtgggatgc			81180
ctoggettea	gccaatctcc	tacagagaga	ggegggaege	acgacccaag	geeteactgg	81240
tacagacag	cggggcgcgg	cccyccaaga	acacagattg	geteeegagg	gcatctcgga	
recetggtgg	ggegeegere	ageeceegg	tgcaggcccg	gccgaggcca	ggaggaagcg	81300
			ctccggacgt			81360
getteegtee	agtgcgcctg	gacgcgctgt	ccttaactgg	agaaaggctt	caccttgaaa	81420
tccaggcttc	atccctagtt	agcgtgtgac	cttgagcagt	tgactttatt	tttcagtgcc	81480
tagttttcca	gataccagga	ctgactccaa	ggactattac	tcatctggag	ggtttagcac	81540
			gttttggtta			81600
			ctttttttt			81660
ctctccccca	gactagaata	cagtggcgcg	atcttggctc	actgcaacct	ccacctcccq	81720
			attagctggg			81780
cccagttaat	ttttgtattt	ttagtagaga	cggggtttcg	ccatcttqqc	cadactaata	81840
taactcctca	cctcacctca	tetgactace	tcagcctctc	aaaatattaa	cattacacc	81900
ataagggagt	agatatagaa	2023250322	taagtaaatc	ttttaaaata	gaccacagge	81960
			aggttaaggg			82020
			agaaagtaaa			82080
cccttcttgt	taaagaatac	atcataagtg	ttagaagtaa	tagtttattt	taaagactaa	82140
ctttcttcaa	gcctccttgc	tttgtgctaa	taactctttg	ttaagcccta	tcctatgtaa	82200
ctgttggaca	tgctcacagg	cacgttccag	ttcacagcct	atgccccttc	cttatttgga	82260
aatgttattg	cttccttaaa	cctttcggta	agcaacttcc	tctccttctt	cgttcttcct	82320
tgcacttacc	tatttagaaa	gttttaggct	attagcaaat	cggctatcag	tttaagagtg	82380
tgaggtcccg	ctccaqccaa	tggatgcagg	acatagcagt	gaggacgacc	caaatgcgta	82440
agggataaat	atatttactt	ttcctttatt	caggtgtgct	ctcgacatcg	ttccatctgc	82500
gattgaggag	cctttctcca	gaaagtaaag	attgccttgc	tagagatett	ttatctccat	82560
actasctttt	cttcataaca	cccattatct	atttctaaca	attttaatat	ttctaacatt	82620
						82680
			gggcctgttt			
			tttattgagt			82740
			acctcagccg			82800
ttaagaagca	ccaaagacag	ggaggcttga	ttgattttgc	tttgggagta	gagggtcaga	82860
agattcacag	gaaaatggca	tttgagcaag	gatgattcac	tggagctagc	ttttaaatac	82920
tggcgaggct	tttatgttgc	agtcccttac	aaagttgagc	attcgcaggg	actgcactcc	82980
gaaataagcc	cacttcccct	tttcattcgc	taatgatcca	gggagctgct	ggttccgcat	83040
acaacaaatt	atacetttte	ctaatcaggg	ttctgcatcg	cctcgaaccc	acagacata	83100
acagattete	ctgaggaagc	agggactggg	gtgcagggtg	aagctgctcg	taccaccea	83160
cacctatasa	caaaactcaa	-323~~~333	aggaggggtc	anguigues	atacasacat	83220
taaccetace	ttttaceacc	acacaa+++a	~33~333cc	agecygage	2-22-422	83280
ot and conserve	acceptage	gracaarry	aagggtaccc	aggggccgga	ageeggggae	
ccaaggcccg	dedege teda	getgetggga	gggctcccgc	cccagggagt	cagttttgca	83340
yagactgggt	ctgcagcgct	ccaccggggg	ccggcgacag	acgccacaaa	acagctgcag	83400
gaacggtggc	regerecagg	cacccagggc	ccgggaaaga	ggcgcgggta	gcacgcgcgg	83460
gtcacgtggg	cgatgcgggc	gracacact	gcacccgcgg	gagggggatg	gggaaaaggg	83520
gcggggccgg	cgcttgacct	cccgtgaagc	ctagcgcggg	gaaggaccgg	aactccgggc	83580

-34 of 185-

gggcgggttg	ttgataatat	ggcggctgga	gctgcctggg	catcccgagg	aggeggtggg	83640
			cgctagtgca			83700
			egggeeetee			83760
			cttcttccgg			83820
cgccggcggg	gagtcaggcc	gggcctcagg	ggcggcggtg	gaacaaataa	acctacaaaa	83880
gctttcccca	aggcggcagc	aaggccttca	gcgagcctcg	acctcggcgc	agatgccccc	83940
tgagtgcctt	getetgetee	gggactcttc	tgggagggag	aaggtggcct	tettacacaa	84000
ggtcagagga	gtattgtcgc	gctggttcag	aagcgattgc	taaagcccat	agaagtteet	84060
gcctatttga	ttaagaacag	ttcttaggtg	ggggttagtt	tttttatatt	tctttgagga	84120
			gaaccttatt			84180
			acgtgaaaaa			84240
ctqtcttcca	atttcctctt	tagagagaaa	ggťagttact	gctgttacta	aaataaaatt	84300
			ccactacttt			84360
ctaactactq	gaaccctaac	ttacaaacga	actacttaca	tttttgattt	ccagttgtat	84420
			taattttgat			84480
ttcattaaaa	atacatatcc	gaagtgagca	agtatgggtc	tgtggacagc	agtgatttt	84540
cctqtcaatt	cctattactt	cagataaaat	gtaccagaca	daddccadac	acaataactc	84600
acqcctqtaa	tcccaqcact	ttaggagget	tggcgggtgg	atcacctgag	atcoggagtt	84660
			ccgtgtctac			84720
gagtagtagc	gcatgcctgt	aatqccaqct	acttgggagg	ctgaagcagg	agaatcgctt	84780
			gagatagcac			84840
aaaaaqaqcq	aaactccqtc	tcaaaaaaaa	agtaccagac	agaaatgggt	tttattttct	84900
			gttgcccagg			84960
			cccaggttta			85020
			accatgcccg			85080
			tcttgaaccc			85140
			aggcatgagc			85200
gggttttgga	aaaagcacta	aacaaaatco	aacttggttt	catatgacag	ctctactact.	85260
aactotaaca	gggggagacc	agttaaccta	cttttctgtc	ttctgtcagc	tgagaattag	85320
atgattccca	aaggcccatt	gaactctgaa	tgactttaaa	tacttcttct	taagtgggta	85380
cacqqttttq	gtaactgatg	ccaggtgatg	aatgcatgaa	agtgcttaat	gaatgaaacc	85440
ggtaaaatag	taggaggaag	ctttattggt	aaggcagggg	tatacctaat	agetetetaa	85500
tttattggta	ttgaagtggt	taacttttgt	ttttttaagg	ggggaaaaca	ttctaagaat	85560
aatqaqqcaa	actgcatatt	gcacaagaga	ctgttgtctc	tattcaacaa	ataccttttq	85620
agtgtccaga	gtctgccagg	tgctgtgcta	ggccctcacg	attgagtagt	gaaccagaga	85680
atgtccctgc	acccatggag	cttattgtct	actggggtag	acagataata	aataagcaaa	85740
caaatcttct	ctcttctccc	tttcgctcca	tgtaagtgtg	tgtgtatagg	tgtatactta	85800
caagttgagt	aaagtgttat	gaaagattaa	gaggagaaat	gcattttggt	tagatgttag	85860
aggactcagc	aggtgacctt	gaaacttaga	gctgaaggat	cagtaggagg	taactagaga	85920
			aggcaagaaa			85980
			agatgtaggc			86040
ctctacgggc	catggttagg	ttttattcct	aatgccgaga	toccaaacat	ggtggttcat	86100
atctgtaatc	ccagtatttt	aggaggccga	ggcaggaata	tagcttgaac	ccaggagttc	86160
aagaccagcc	tgagcaacat	gagacctgta	caaaacattt	aaaaaattqc	tgggtatgat	86220
ggtgcacacc	tgtggtccca	gctactcagg	aggctgaggc	agaaqqatca	cttgagccta	86280
ggaggtggag	gctacaatga	gccatatttg	agtcactaca	ctccaqcctq	gatgacaaag	86340
tgagaccatg	tgtcaaacaa	aatacagaaa	gaatattaat	ttaaaatttt	gaaagaggag	86400
tgatctgaac	ttatatctta	aaaagatcat	tctagggcat	ggtggctcat	gcctgtaatc	86460
aagggctttg	ggaggctgag	acaggaggat	cacctgaggc	cagttcgaga	tcaacctgta	86520
cagcatagag	agactccatc	tctacaaaaa	gaaaaaataa	atagctgggt	gttgtgagtt	86580
attcaggagg	ctgaagcaga	aagatcactt	gagcccagga	gtttgaggct	gcagtaagct	86640
atgatcccac	cactgcaaca	cagtgagatc	ttgtctcaaa	aaaaaaaaa	aatcattcta	86700
			gtagaagctg			86760
tcgattcaga	ctttaaatac	catcaatgca	ttgagtccca	aatttacatc	actacgttgg	86820
atccttgccc	ctgaatccag	actggtatat	ccaactttag	gttcagtttg	tatctctacc	86880
tgaccaatat	agaggtgtcc	agtcttttgg	cttccctagg	ccacattgga	agaagaattq	86940
tcttgagcca	cacatagagt	acactaacgc	taacaatagc	agatgagcta	aaaaaaatc	87000
gcaaaactta	taatgtttta	agaaagttta	cgaatttgtg	ttgggcacat	tcagagccat	87060
cctgggccgc	gggatggaca	agcttaatcc	agtagatacc	ttcaacttac	aatatctaaa	87120
attttatgcc'	agatttagtc	attttaaacc	tgctcatcag	tttttctcaa	qaagtagtat	87180
tttggctttt	tttcttttct	tttttttgag	atggagtttc	gctcttatcq	ttcaagctgg	87240
agtgcagtgg	cggatcttgg	ctcactgcaa	cctccgcctc	ctqqqttcaa	gtgattctcc	87300
tgcctcagcc	tcgcaagtag	ctggaattac	aggcatgcgc	caccatgacc	agctaatttt	87360

-35 of 185-

tggagacagg gtttcaccat gttggtcagg ctggttttgt actcctgacc tcaggtgatc tgcctgcctc ggcctcccaa aggctgggat tacaggcatg agccaccgct cccggctgca 87420 87480 tttttggatt tttagttget cageceaaaa etttagtaea tetttgaaee tettetttee 87540 tectacteta tatetgatee ateageaaat etgttaggte taceteacae atategaaat 87600 cctaccacgt ctcaccatct gtgacaatta acaccetggt ctaggcagtc atctctgtta agattgagtg gttaaggatg tcctctaagg agatgacatt caaatcttag cttaaatgtc 87660 87720 aagagggagc tggttttata aagattgagg aggcagcatt attttgccat aggcttccat 87780 ttggtttcca ttccattctt gatacttatg gtatatattc aaaacaaatg cacagaaaca gacccaggta tattgggaat ttcggatata gagttcctag ttgggaaaag atagactgat 87840 87900 ctgtaaatga tgctagttat ccatcatctg gcaaaaaata atttcctgcc tcctctcata 87960 tatotoagat caacagactt tttotgttaa gggccaaatc ataaatattt taggctttoc agaccatatg gtttotgtca cactotoott tatoottgaa gccatagaca atatgtaaac 88020 88080 aaatgggcat ggctgtgcta cgataaaact ttacttacaa aaactggtag tgggccagtt 88140 taggcatggc cagcactttg ggaggctaag gcagatggat cacttggggt caggagtttg agaccagcct ggccaacatg gtgaaaccct gtctctacta aaaatacaaa aaatagctgg 88200 88260 gcatggtggt gggtgtctat aattccagct actctggagg ctaagacaca agaatcactt 88320 gaacccagga ggcagaggtt gcagtgagct gagatagcac cactgcactc cagccagggt 88380 gacggagtet taaagcaaaa caaaacaaaa ggtagtgggt tgtatttgge ccatgggetg 88440 tagtttgcca atccctgatg cagaaacaaa ttccaggtaa ataagagcct ggaatgttaa 88500 aaaaacaaaa cttgaagtca tgtagaagaa caggtagggg gaacaatcct gatctcagga taggaaggga tattgcttaa aataagacac aggaaaatat aatccatgtt gtgtaaattt 88560 88620 gactacgtta aaacttaaaa ctttcgccaa gcgcggtggc tcacgcctgt aataccagta 88680 ctttgggagg ccgaggtgag cagatcacca ggtcaggaga ttgagaccat cctggctaac 88740 acggtgaaac cccgtctcta ctaaaaatac aaaacattag ccgggcgtgg tggcgggegc 88800 ctgtagtccc agctacttgg gaggctgagg caggagaatg gcctgaaccc gggaggcgaa gcttgcagtg agctgagatc gcgccactgc actccagcct gggcgacaga gtgagattcc 88860 88920 gteteaaaaa aacaaacaa aacaaagcaa aaaacetaaa aettteatae aataaagtat 88980 acctaagata cttctagaag agaagattta catccaggac gtgtatggaa tttctgcaag 89040 taataagtaa aagacaaggg acatgaagag gcagttcaca aaagaggaag ccaaaatgac 89100 caataaacat gaaaggatgt ttaacctcaa aggaaacaag gaaatgaatt aaaaacatca aatgccattt caaaactagt aagttggcaa aattaaaaat accaaggatg agaatatgaa 89160 89220 gcatggctat atgagtgcat ggaatggtac agtcactttc attaaaaatg cacataattt 89280 gttttttatt tattttttg agacagtcta tgtcgcccag gctagaatgc agtggcatga tctcggctca ccacaatctc tgcctcctgg gttcaagcaa ttctcctgcc tcagcctcct gagtagctgg gattacaggc acatgccaca acgcccggtt aagttttgta tttttagtag 89340 89400 89460 agacagggtt ttgccatgtt ggccaggctg gtctcgaact cctgacctca ggtgagctgc 89520 ttcccaaagt gctgggatta gaggcgtgag ccaatgctcc tggctgaaaa aaatgcacat 89580 aatttgttac ctagcaattc catgtctaga ggcttatcct agagaaattc ttgcttatat 89640 gcataggaag acgigtacta gaaigttcac tagttgaatg titaagtgaa aattaggaaa taaagtaaat gttcattaac aggaaaatga gtaaaggtat atttataaaa caattaagta 89700 89760 gctaaaatga ataaactaga gctgcgtgaa tgaactagaa ctggttcaat agtcatgtca 89820 89880 89940 cageteactg caacetecae etectgggtt aaagtgatte teetgeetea geeteegaq 90000 tagttgggat tacaggcatg caccaccatg cocagctcat tttcctattt ttagtggcca cagggtttca ccatgttggc caggctggtc ttgaactcct gacctcaagt gttccaccca 90060 90120 acttggcctc ccaaagtgct aggattacag gcgtgagcca ccgtgctcag ccatttgcgt gatttttaaa gatgtgcaga ataatgccat taaaaaaaat acacatacat gtatatata 90180 90240 acacgtttgg ctgggtgtgg tggctcacac ctgtaatccc agcactttgg gaggctgagg 90300 caggaggatc acttgagccc aggtgtacaa gactagcctg ggcgagatag caagacccca 90360 teteaacaae agaaaggata attaggtatg gtggeatgag aggateaett gageecagga 90420 gttcgagtgt tatcaggcca ctgcactcta gcctggacaa caaagcaaga ccgtgtctca 90480 aaaaaataaa aataaaaagt atttgtatgt ggtcatagtc aaaaaacgta catggaagga 90540 aaatgtettt atttatttat ttattttttt ttttttaaga cagagtettg etetgteace caggetgggg tacagtggtg taateteage teacegeaat eteggeetee egggtteaag 90600 90660 cgattettet geeteageet tetaagtage tgggaetaea ggtaeeegee accaeaceet 90720 gctaattett gtgtttteag tagagacagg gttteaceat gttggeaagg etggtetega acteetgace ttaagtgage caecegeett ggeeteecaa agteetggga ttacaggtgt 90780 90840 gagecaetge gettggecag gaaatateta atttagtaag tatttatate tgggaaagga 90900 agggtcaggt ggtgattcat aggaactcta aagtctatgt ataatactta gggggacaga 90960 aggaaataaa gcaaaatgct gatatttgat tgttgagttg tgtatatgtt agaagtataa 91020 cataggagat ctgattgata gtaggagaat gtttttaggt ggtaaaagtg gaaccgtggt 91080 ggtttgtttt ggcagtagaa tcagttggtc atagtttgta tgtggaaggt aataaacaga 91140

-36 of 185-

ccatgttaag	gatgacttcc	ggaattttgg	tctgagtagt	gggtggatga	. cagtgtcatt	91200
catgagggaa	gatgaagact	gaggtaggaa	caggtttggg	agaagatgag	atgttccctt	91260
ttagacaagt	ggaattatgo	aagatggcag	gtaggtggtt	agctatatga	atttgagata	91320
aaagatttag	gatggagata	taaatttagg	autaacaucu	tatctatoot	attgtaagcc	91380
ttaagacctag	gatagataa	. caaacccagg	geaucageg	tacccacggc	aggagtcaag	
gaacgg	graggarcag	tttaggaaata	-tagatgtata	Lgcagaagag	aggagtcaag	91440
gaagccaaga	caagctaatg	tttaaagtga	grgargragr	ccargggcag	atgctgctga	91500
gagggctgca	aacaccagtg	accctacaac	atttttaaat	gtcgtcttcc	tgacagcagt	91560
gatcagtacc	tgcaacgatc	ttatttattt	ttttcatgtt	agtctccaca	cacttgaatg	91620
tagacttttt	gaaggcaaaa	. tcattgcctt	ttctgagctg	ggagcatgtc	tqqcacatac	91680
caagcactca	acagttgatg	tattgacttc	atccagatac	tctgaggggg	agttatttcc	91740
tgctactagc	ctttcacctt	tcaatgttta	agagcacaaa	tacagagatg	ggcacgtttt	91800
		ccttttcctg				91860
		tagtcttatg				91920
ttaagetget	gggcaccttc	ctatcttgga	totcatatta	acttatatac	accaccagge	91980
ttactatttt	atataataaa	gaagcaatta	tatgattatt	ttagagaga	agcagaactt	
statttt	tttttagcaag	gaagcaacca	tacgattatt	ccacagacaa	actattett	92040
attitutati	tttttagatg	gagtetetet	rigieteeea	ggctggagta	cagtgtcgcg	92100
accccggccc	actgcaacct	cegactectg	ggttcaagca	attetetgee	tcagcctccc	. 92160
aagtagctgg	gcttacaggt	gtccgccacc	acacccagct	cattgttttg	tatttttagt	92220
agagatgggg	tttcaccatg	ttggccaggc	tggtcttgag	ctactgacct	caggtgatcc	92280
acccgccttg	gcatcccaaa	gtgctggaat	tacaggcgtg	agccaccgtg	cctggcccag	92340
acaaattatt	atactctgag	tgttagaggc	ttaggatgtt	ttcacttgat	actataggag	92400
gaataagtaa	taaqatatqa	tacacaacca	aagacctttc	ttcactatoc	ttctagtagc	92460
tagtactatg	gatgacacat	ggtaataata	ttaattaaca	tttatcatca	atttactoto	92520
ctagttactc	ttctaaccc	cttacaggta	tatattttt	ttcatcaata	atactatasa	92580
gtagttttta	ttattgacct	aattttataa	atgaagaaaa	ttaaccaaca	accecetaag	92640
taacttotoo	andergacee	aactttataa	teetaeaaa	ccaagaccca	gagaagtaag	
atasatsast	tatatataa	ggcttataag	cggcagagee	agaatttgac	cecagatgtt	92700
gegaceacae	tgteteteea	taagcaggtt	caactcttt	gactggatgc	tgttccaagg	92760
teacttectt	agagaagcct	ttgctgacaa	ctaccctcct	gtgccctcct	ccaaggctgt	92820
ccattgttct	agaactttga	atactcatct	tagaataaag	ctggtctaat	ttttacagtg	92880
ttatagaatg	gatctctgac	tgcaaaagtt	ggtcataatt	atctttttat	gttctagtga	92940
aaggcaaaga	acaagagaag	acctcagatg	tgaagtccat	taaaggtaag	ttctgccctt	93000
		agtgatgtgc				93060
tactctctct	tttggcatta	atcatttctg	ccttatttta	taattactta	tgattttgat	93120
ttatttccct	ctttaacctq	tataatgctt	taacatctag	catataataa	gtaggetttt	93180
ttttttttt	tttttttgga	gacggagtct	tactetatta	cccaaactaa	agtgcagtgg	93240
coccatetto	geteactgea	agctctgtct	cccaaattca	caccattete	ctacctcacc	93300-
ctccccacca	actaggacta	caggtgcacg	acaccacaca	taccatectt	tttatattt	93360
ttantanana	cacactttca	ccatgttagc	gegeeacgee	taggetaatet	grante	
teageagaga	tegageteea	assataataa	cagtatggtt	ctgattttt	gaccitgiga	93420
-tata	teggeeteee	aaagtgctgg	gattacaage	gcgagccacc	gcacccggcc	93480
graagragge	ttttttace	ttaattttat	ttttttgaga	tggagtcttg	ctcttatccc	93540
caggctggag	rgcagrggrg	ccatctcggc	tcactgcagc	atccacctcc	cgggttcaag	93600
cgattctcct	gcctcagcct	cccgagtagc	tgggattaca	ggtggccgcc	accatgccca	93660
gctaattttt	gtatttttag	tagagacagg	gtttcaccgt	gttggccagg	ccagtctcaa	93720
actcctgacc	tcaagtgatc	cactcgcctt	ggcctcccaa	agtcctggga	ttacaggcgt	93780
gagccaccat	gcctggccat	aagtaggctt	ttactgagcc	ttqtqtqtat	tggctatcct	93840
agtgattaca	gtgaaccagt	gcccttctta	ttaatcacac	atttaattqt	tccctaaaag	93900
tgattagttc	actttattta	tttagtaaga	caaaaaatga	agaatactct	taactgagca	93960
gtctgttaac	tataggaaag	cactgacact	tataaggett	agttttctgt	catttatcca	94020
gaagtatoot	tgattacagt	ttttactttt	ttatttgaat	gaacaacctt	22ttt2222t	94080
atattttott	tattttttqt	tgggatcgat	acattotoot	tatttataa	ttagagata	94140
ctttttaaac	atactatatt	actcactgat	tttatttat	coctetacaga	ctagageacg	
cccccaaag	tastassast	totttaccgac	-t-cattege	caguguadag	agactgaagt	94200
gggaaaatta	caatyyaaat	tgtttccata	greattacat	attaatttca	tcaatttatt	94260
cccacaaaac	etgtagattg	CLACETATE	agatttttcc	ttcaaatgtt	tttatgttgt	94320
attgettgea	ctgagtattt	attctatatg	ctcaatttgc	tggagaagaa	gactaattat	94380
aacttaggca	agttgtaaaa	ttagggaaaa	aagtaaggta	ccttacagcc	tagtttactt	94440
atttcttatg	taaagccagt	tagattccac	attagttcaa	actgccttct	ttgagcaaaa	94500
cttgattggc	agtgataaag	gcttaaagcc	cttctcaagc	agagacctgt	aaagactaga	94560
tctgactgta	gtagaaggaa	ggaacttaga	tgtttcaggc	agtgagaaca	ccartcttcc	94620
actctaaact	ttgccactaa	cagtatgacc	ttgggaagtt	gtaactttct	tcagattctt	94680
catttgttga	atggggggat	tggcctagct	aatttctaaa	tctctactcc	octaaaaaat	94740
tctqtqctta	tactctgatt	atgaagtaca	taatctotoc	ttaacattca	ctgacttatc	94800
cttaggataa	tacagaagca	gtacaagaaa	cagcccctca	agatgtttgg	agtotootta	94860
gaaagacaaa	cttatacaca	gaacagtagc	aaatacacca	asatsatast	ageteest	94920
			uyacca	uuaraalaal	agetgeeatt	J=34U

-37 of 185-

tatagaacac ttcttctgtt ctgggcatta gacaaaaact gactataacg gtgaacaaaa 94980 aagacttagg tootgoooto attgaactta cagattagta ggggagagga acattaatca 95040 agtaattcca cagatggctt agcctagatt ggtagtgatg gaagtaaaga gatgtgaacg gacttgaaaa aaaattcgga ggcaaaatgg atagaagttt attattgatt aaatatgagg 95100 95160 tgtgagagag agggatattt aagattgata cctaccttct ggcttgccta acagaaccaa 95220 aacaggaaat tatatgttca gttttgttat gttgggtggg aggtgctttt gagtcattca tttatatatg ttatatatgt tattttatat gcatagtaat tttaaggtct gagttttaaa 95280 95340 ccaaaggtta gagagtgatt ttttagagtc tagcaaacct aagttgaaat cctgcctgtt 95400 gaaatggctg tttactagct cattaaccta gggcaaagta ttcaacttgt tttcatttt gtcttcatct ctaaaatgag gaaaatatgg tcttacaaga ttgtcctgag agatagatga 95460 95520 aataatatcc aaaaaaaaaa aaggtacata gagaaactcg tatagtgcct ggtatatagt 95580 95640 aggteeteea ttggtageta teattateta gtittaacai ageetteagt tigttgaait agtcaaactg agtgaagcac tgcaaggaat tcagaggaat ttgagatcaa caaatgattt 95700 ctgaagttta gggaagactt catggcaatg acacttacct tgtataaaag ttgaagaata agaaagattt gaatgagaga ttctttctct tctccctacc agcccagctt cttatttgag 95760 95820 gatatattgg gcaaaggggc cttcagacaa gtagagggag atttttacag aaagattgag 95880 atgaaggtat agaaggctgt aaagaccaga aaagagaatt gagacagagg aagcaggaag ccactgtagg tttttgagca agatattgat gctgtaagta tggtgtttat gaaaggttag 95940 96000 totggaagag atttgcagga tggagacccc ggaagttttt ttgttataat acagaaagac 96060 ttgcactgag ggtgaggtgt taaaaataaa caggtaagta aatgtttaaa catcttgaag 96120 96180 gaaaagtcaa caaatcttgg caagtaaaca gataacagtg aaaaagaatg ggaccaagat tttgagtttt ggagactggt ggattgaaca gacagggaaa ttgagaggag aatcagatga 96240 tgatgtttta agttgatatt tagacagatt gtgcttgaga tggtaaagtc aatgtgggtg 96300 ggaatgctta gtagcgagta atcagtgata caagaccaaa gcccaggtca aagacaagtc 96360 acagatacag atcagggett tttcatetge tecacagagg tgtaceetag gagetgttge aaacagteca tgtggagggt gtgagtaaga tgttteeett gaatttgeea gaattaettt tttgttgttg ttgttgttt ttetgagaca gatteteget etgttgeea ggetggaggg 96420 96480 96540 cagtggcgag atcgcgcagc tcactgcaac ctctgcctct cgggttcgag tgattctcct 96600 geeteageet eccaagtage tgggattaca ggettgtgee accaageeca getaatttet 96660 tttgtatttt tagtagagat ggggtttcac catgttggcc agactggtct cgaactcctg 96720 gcctcgtgat ctgcctgcct cagcctccaa aagttctggg attacaggcg tgaaccactg cacccggtcc cttgttaagt ttattttggt gggaagcaaa ggaggtttca gcttttaaaa 96780 96840 agtttgaaaa ttattgctct ggtaataatt aaagatttga gagtaaatat gctttctagc 96900 agaaagaata aaagaagaac agatagcctc aagaagggga gccaaagaag caggctatat ctgacacact gggtgttgat aaatgggtat taaaagaatg agagcaatga gcagatagaa 96960 97020 gaggaaatta ggagagtata ataccatgga gaccaagaaa gatagactat caggaaggag 97080 tggtaaaaat aagttactag ttctaagaga gatgttaaga gggaccgggg aaagccttgt acaaatgagt tagtagcatt ttacattata tacatctaat taagaaacaa tgcgagagtc 97140 97200 tcaccattcc tatagactct tacttgtact tgtctgaaca cgaaaactgg cttttgttta 97260 taaataaget aaaaattatt ttgeteeaat tteteatgaa aataaaaata aacettettt taacattgaa aaaatagttt gaagacagte actetteatt ttgtaattee cacaactatt 97320 97380 attgaatgac tgaaattatc tttattctga agccaaaggg gtgatactga tatttcttca gactactaaa aatatattt atgaatttt agtgtgctt atctttttt gtttttttt ttgagatgga gttcactcc cgttgctcag gctggagggc agtggtgcaa tctcagctca 97440 97500 97560 ctgcaacctt cgcctcccag attcaagcaa ttctcctgcc tcggtctccc aagtagctgg gattacaggc acctgcccc acacccagct aatttttgt atttttagta gagacagggt 97620 97680 ttcaccatgt tggtcagget ggtcttgaac teetgacete aggtgateca eccacettgg 97740 cctcccaaag tactgcgatt gcaggcatga gccaccatgc ctggcctgag gaatattttt 97800 ctaggttccc cccaccccaa gcatttattc tgcaatttta gttttgttcc taaagcaagc aaggtttaag gatttaaaaa taatccgtat tttagaatgc tttctggctt tgttactttt 97860 97920 tatccacagt agaagttctc agagaatgat ctccctcttt taatttaact ttttggcaca 97980 gtattttgag aattataaat aatattagaa tgttttctgg ctgggtgtgg tggctcatgc ctgtaatcct ggctacttgg gaggctgagg caggagaatc acttgaacat gggaggcaga ggttgcagtg agccgaggtc atgccactgc actccagcct gggtgacaga gcaagactct 98040 98100 98160 gtctgggaaa aaaaaaaaaa aaaaaaagag tgttttcttt cctattttcc accacttgat 98220 taagttactt ttcctcttaa gtattttttg ctgagtatgc tgacttaaga gtaatgttac 98280 aaaatttaat ttttaaagtt ctctgaaagc ccctttatga gagttttagg ctatcaaatt gtgtttaatt cttaacaatt ttttgaaaaa ttatagcttc aatatccgta cattccccac 98340 98400 98460 98520 98580 ttaacttgta ttagaaggat ttgagtacaa tatgtgaaac ttctgtcata ggatacagaa 98640 ctatataatt ggaaagtgct ttggaaaaaa tgtatttaaa ataacagcta caagtataat 98700

-38 of 185-

gggtagctgt	gttgtgttcc	tgtaaatata	gaatataaag	catgcccagt	agaaaaacaa	98760
gcatttccag	aagaaatata	tctgatcact	aaatataaat	atatqaaaaa	gatgtctcac	98820
	agggaagtgc					98880
	aagtttgaca					98940
tttagtgata	atataatctg	gtgaagactc	tttggaaagc	aatttggaaa	tcagtataaa	99000
	catttaggcc					99060
	tgtatgtgtg					99120
	tgtatgttga					99180
	tataaatatc					99240
taggacaaca	tatagccatt	totttotatt	tatttattt	cttgagaga	acguatgute	99300
	gctggagtgc					99360
	ttctctcgcc					99420
						99480
	aattttttaa					99540
	cctggcctca					
	ccaccacacc					99600
	aaggcatgtt					99660
	aaaataagtt					99720
	tacccaaatt					99780
	ccatgaacca					99840
	gtgtatattc					99900
taatacatag	cagacaaaat	gcatatagct	cagagagtaa	aattgtaagt	tttgctagat	99960
cactcataaa	ttgctgatga	gaatttaaaa	tggtgcagat	gctctggaaa	acaggcagtt	100020
tctttctttc	tttttttt	tctttttgag	acagggtctc	actctgttgc	gcaggctgga	100080
	gtgattacaa					.100140
cctcagtctc	ctgagtagct	gggactatag	gcatgcacca	ccacgcctgg	ctaatttttg	100200
tattttttt	tttttttt	gtagagacgg	ggtttcgcca	tgtttcccag	gctggtctca	100260
aactcctgga	atcaagcgat	ccacttgcgt	aggcctccca	aagtgctggg	attacgggcg	100320
tgagctactg	tgcctggcct	aggcagtttg	tttgtttgtt	tgtttgtttg	tttatttatt	100380
tgtagacgga	gtctcacagg	ctggagtgca	gtggcccaat	ttttggctca	ctgcaacctc	100440
cgcctcccag	gttcaagcta	ttctcctgcc	tcagcctcct	gagtagctgg	gatgacaggt	100500
gcctgccata	atgcctggct	gatttttgta	tatttagtag	atatggggtt	tcaccatgtt	100560
ggtcaggctg	gttttgaact	cctgacctca	ggtgatcagc	ccgcctcggc	ctcccaaagt	100620
gctgggatta	caggcatgag	ccgtcatccc	tggctggtgg	tttcttatga	cgtgaaacat	100680
gcaattacca	tatgacctag	cagttgcact	ctgtatttat	cccagataaa	tgaaaactta	100740
ccttccaata	aaaacctgtg	cacaaatgtt	catagcagct	taatattgaa	aaactggatg	100800
ttcttcagca	ggtgaatgaa	ctggttcatt	cataccatgg	aataccattc	agcaataaaa	100860
aggaacaaac	tgttgataca	tttaaccacc	tggatgaata	tcaagggaat	tatgctgtca	100920
gacaaaaacc	agtccctaaa	gactacatat	agtatgattc	cgtttggata	atattcttga	100980
	ttaagagaaa					101040
	aagtgggtgt					101100
	tggcagtgga					101160
	gtatagataa					101220
	agagtgatat					101280
	gggatctcta					101340
	tcttgaactc					101400
	aggcgtgagc					101460
	agcattatct					101520
	cctcaagttt					101580
	gaagacacga					101640
	tgacaaattg					101700
	atgaaagcca					101760
	tttaaattta					101820
	ggtacgatct					101880
	tctttgtaga					101940
	actgaaaata					102000
	ggttttgcca					102060
	ccttgttact					102080
aatggattt	atgttaattt	gettttetee	cattttaat	gaggetaget	atacttttt	102120
atatttt	tggccccttt	gazactacts	tcatacett	tttttatta	acayeteta	102160
acteteeee	gggcgcagtg	ggaactagta	gcaatcooo	cacttt	gaaccata	102340
						102360
totactaca	cgaaggtcag gtacaaaaac	tageteagee	taataaaaa	toggto	adaccyddic	102360
cayyaygetg	agtcaagaga	accycligad	cccgggaggt	aaaaaccaac	Lycattgage	102480

-39 of 185-

cgagatcgcg	ccattgctct	ccaqcctaqq	caacaagagt	gaaaagtctc	aaaaaaaaa	102540
aaaaaaaaaa	aaaaaagaat	ttacatootc	tgaattgcca	ttaaaagaga	tatgagaatt	102600
******			egaacegeea	teadaagaga	tacgagaacc	
	aaataacttt					102660
agaaaccaaa	agcatagtat	ttgtagtttt	tttatttact	ttagttgcta	ggaagtaaac	102720
tttattcaag	gtctctggta	ccaqttqttq	ctaaaagtga	ttgactaatc	tatcaatcta	102780
aaattatttg	ttgctgaact	gctaatfctf	ttacttctat	cttttaggca	gatettetet	102840
aaaataaaaa		500000000				
	actcaagaga					102900
cgacactatt	gtcctccctt	acttcattca	attcatggaa	cttcggcgaa	tggagcattt	102960
ggtgaaattt	tggttagagg	ctgaaagttt	tcattcaaca	acttggtcgc	gaataagagc	103020
	aacacagtga					103080
	acagcgtctt					103140
ctcagcacag	ttgtttatga	ctcattcaga	aggaattgac	ctgaataata	gaactaacag	103200
cactcagaat	cacttgctgc	tttcccagga	atgtgagagt	gcccattctc	tccatcttaa	103260
	gcaggaactc					103320
	agtagaaata					103380
gaaaagtgag	tatgtgattt	tcttgtgtgt	acatatgtgt	ctcactttct	ttttttaatt'	:103440
tactaagcag	aacttcagat	gaggaataaa	atgattggaa	tattttttt	ctcctctaac	103500
	tttgggagaa					103560
	gactggacct					103620
	ttttcccctc					103680
ttcctccctc	ggtcttaatt	ttattaatat	tttactgcac	tttgcagata	aaatttttaa	103740
	aaaattgcca					103800
	tattagtcac					103860
	gagtettget					103920
	ccgggttcat					103980
aggcgcctgc	caccacaccc	ggctaatttt	tttgtatttt	tagtagagac	ggggtttcac	104040
	aggatggtct					104100
	attacaggca					104160
	ggcttagaaa					104220
	tttgacaaga					104280
atactcttaa	ttatcacctg	ggattttgat	tagacagcct	tcatgttctt	tttcatctta	104340
	gtgtcttaaa					104400
	aaaatgaggt					104460
		_	_			
	cctccctcct		aaccaggere	ccgaggaget	gggattadag	104520
	ccactcctgg					104580
tggtcaggct	gatcttgaac	tcctgacctc	aagtgaccca	cctgcctcgg	cctcccaaag	:104640
tqctqqqatt	acaggcatga	atcaccacac	ctgacggcat	gttattttca	tcqcaaaqtt	104700
actotaaoct	gggagaagtg	gcacacactt	gtactcccag	ctactcagga	agettaaget	104760
	cttgagccca					104820
	agaaaaaaag					104880
tcttattcct	ttcacccttc	attcccactt	ttgatcccat	cttttattta	tttagtttta	104940
ttaaatgtat	atttgtctga	taattctqct	atctacaqtt	ttttqtqqac	ctgactcage	105000
	ttcttcggat					105060
atanaatat	ttattaggat	tttatatata	550550050	atataata	*******	
	ttcttggact					105120
gttacttcag	gtgttttgca	ttttctttg	ccatgcacct	ggggcctggg	tcactaccct	105180
tctggtacca	cttaaaactg	aatttttgtc	ttgggtgctc	gtactgatcc	tgtatgagta	105240
	cttactgtag					105300
	aatatgctct					105360
	agaatactac					105420
	ccactatttt					105480
gagagaattc	agtattggga	agagtttcta	acctgtttct	ggaaatggaa	gtccaaagtc	105540
tqtttctqta	attgttttt	ttttgagatg	gagtctcact	ctotcaccca	gactagaata	105600
	ctctcagctc					105660
	tgagtagctg					105720
	gagatggggt					105780
	cacctcagcc					105840
tttattgttt	ttagaaactg	tctttqcttt	agtggtaatt	ttcaataaaa	ataqaaataq	105900
	attaaaagag					105960
tatatatant	aagtttgacc	+++++>>>>+	otatacttot	atgagtttta	acacatacat	106020
	aactgtcacc					106080
	acctctatcc					106140
tttgcctttt	ctctttttt	ttcttatttt	tttttttgag	acagcgtctt	getetgtege	106200
	gtgcagtgag					106260

-40 of 185-

gcagttctcc	tgccttagcc	tccctagtag	ctgggattat	aggcacgcac	caccacaccc	106320
				catgttggcc		106380
caaactcttq	acctcaagtg	atccacctgc	ctcqqcctcc	caaagtgctg	ggattacagg	106440
cgtgagccac	tgtgcccaat	caggactttt	tttttttaaa	tttacattca	acttgtcatt	106500
tttttcttqt	atggattgtg	ccttcagagt	cacacctaaq	agccctttgc	ctaagcaaag	106560
				gtggttggcc		106620
				ggcagattac		106680
				tactaaaaat		106740
				cagctacttg		106800
				gagccgagat		106860
				aaaaaaaaaa		106920
				atgtcgtata		106980
				gatgtctagt		107040
				tttgtacttt		107100
				gtgtgtgtct		107160
taataggeet	teetettaat	tagtatatag	taagtattaa	aattgggtaa	tactacactt	
						107220
				cattttctag		107280
				ttgggaagtg		107340
				cttctgtcac		107400
				ccaggttcaa		107460
				caccatgccc		107520
				gctggtctcg		107580
ctcaagtgat	tagcccacct	tggcctccca	aagtgttagg	attatagatg	tgagccaccg	107640
				taaactatga		107700
				tgagtgaatt		107760
				tttatgagcg		107820
				ctggtgttgg		107880
ttgtttttct	ttgtcagatt	gtatagggat	ttattagtct	tttcaaagaa	ctagcttttg	107940
ttttgatttt	tctgttgttt	tgttttcaat	tttattgatt	ttctgctctt	tattatttct	108000
tttctattat	ttctgcttgc	tttgggttta	ttttactctt	tttttttt	ccaagttgct	108060
taaagtagaa	acttagattt	ctggtttgag	acctttcttt	tctaagataa	gcatttaata	108120
ctgtaaattt	ccttctaacc	actgctttag	ttacaccccc	acaaattctg	gtattttgaa	108180
ctgagcacaa	atgaaatgtt	ctaatttccc	ttgaatctta	ttcttttacc	aatgaattat	108240
ttagaaatat	gttatttagt	ttgcaagcaa	ttggagactt	ttttcctgtt	atttttctac	108300
catttatttc	tcatttcatt	atattatggt	cagagaatat	attttgaatg	atttcattta	108360
ttaattttta	aaaataacat	taaaaaattt	tttaaaatgt	gaatatacca	catacagtat	108420
				gtcaagttga		108480
taatgatggt	gttcagtttt	tctttattct	tgctgatact	ttgtatgcag	ttatatcact	108540
				ttttttccaa		108600
				tgttaggtgt		108660
				tgtaattccc		108720
				tttatataga		108780
				tttttacttt		108840
				tagttgggta		108900
				gagttttgct		108960
				tccacctcct		109020
				gcacgcgcac		109080
tgatttttg	tatttttagt	agaaacggat	tttcaccato	ttagccaggc	tcatcttgaa	109140
ctcctgacct	caggtgatcc	acctacttta	gcctcccaaa	gtgctgggat	tacaggcgtg	109200
				tctcacaata		109260
				ttatttacat		109320
				ggtattaata		109380
				tttagtatat		109440
				ttttaattct		109500
						109560
				ggatttggca aggtctctgg		109560
				gtacttgaga		109680
grgargacic	taacgagca	Lyctyccttc	aaycatctgt	ttaacaaagc	acatoctgua	109740
				gtttcagaga		109800
				aatttttctt		109860
tttattta	Greecatgte	LACETCEEC	ttacacagaca	cagtaacaat	cegaeceec	109920
CCCCCCCCCC	Coacatttcc	CCCTTTTCTA	cccyacaaaa	ctgccatcgt	catcatggcc	109980
egtteteaat	Aadcrattaa	gracacctcc	cagacggggt	ggcagctggg	cagaggggct	110040

-41 of 185-

cctcacttcc	cagatggggc	agccgggcag	aggcgccccc	cacctcccag	acggggcagt	110100
aaccaaacaa	aggcgccccc	cacctccctc	ccggatgggg	caactaacca	aacaaaaact	110160
						110220
			ctggccgggc			
			ggctgccccc			110280
cggctgccgg	gctgaggggc	tecteactte	gcagaccggg	cggctgccgg	gcggagggc	110340
tcctcacttc	tcagacgggg	caaccaaaca	gagacgctcc	tcacctccca	gatggggtgg	110400
caatacaaaa	gagagagtgg	tcagttccca	gacggggtcg	caacaaaaa	gaggggteg	110460
cggccgggca	gagacacccc	ccagcccca	3409999009	cggccgggca	gaggegeeee	
teccatecca	gacggggcgg	cggggcagag	gtggtcccca	catctcagac	gargggcrgc	110520
cgggcagaga	cactcctcac	ttcctagacg	ggatggcagc	cgggaagagg	tgctcctcac	110580
ttcccagacg	gggggggggg	tcagaggggc	tcctcacatc	ccagacgatg	ggcggctagg	110640
			ggcggccggg			110700
			gtggaggttg			110760
			ttgagtgagc			110820
ggcacctcgg	gaggccgagg	caggcagatc	actcgcggtc	aggagctgga	gaccagcccg	110880
gccaacacag	cgaaaccccg	tctccaccaa	aaaatgcaaa	aaccagtcag	gtgtggcggc	110940
			ctgaggcagg			111000
			agcctcggct			111060
			cgagggagag			111120
			tatcttactt			111180
gattctcctg	ccacagetee	caagtagctg	ggactgcagg	catgtgccac	tacacccagc	111240
taatttttt	gtatttttag	tagagacagg	gtttcaccat	attagccaga	ctaatcttaa	111300
			ggcctcccaa			111360
						111420
			ttatatattg			
			attacaatat			111480
tcacatttaa	tattttgtaa	cttcaagtgg	aatgtagaaa	acttaaccac	cataaaaata	111540
gaactaggga	tgaggttaaa	aaagagagag	aaaagaaatg	taataaagat	ttaataacac	111600
cattttttt	tttttttctc	tttttttt	gagacagagt	ctctctttct	gttaccaggc	111660
			gcaacctccg			111720
						111780
			ttacaggtgc			
			tgtgttggcc			111840
accttgtgat	tegeteteet	cagcctccca	aagtgctggg	attacaggcg	tgagccaccg	111900
cgcccggcta	agtetttaaa	tatttttttg	acattgcact	ttttctcttt	teettetagg	111960
attttagtaa	cccaaatgtt	agttttgtta	ttgtttggca	ggttcctgag	gctttcctta	112020
			gcttcgaaaa			112080
						112140
			tctgttattg			
			aattttcttt			112200
ttgctcctga	aactcttatt	tgtttcagga	gtgatcttat	ttcttagagc	atggttttag	112260
tagctactta	aaatttqttt	tatcatccca	gcatatgtgt	cctcttgatt	gtcttttctc	112320
			atatgacaat			112380
			atcttgttta			112440
			ttaggttcag			112500
			agttttgtat			112560
tctgtgtcca	gtctgggacc	tggccaatgg	tcaggtccca	aagcctttgt	acacttttag	112620
aagcagggcc	atgcacaccc	agctcacgag	tggccccggg	agtgcacata	caactcgacg	112680
ttttcatggg	ctccttcttt	tctgtgatgt	ccctgacacg	ttctaccttc	taagaacctc	112740
						112800
			aagtcagggc			
			tggccacgac			112860
gtttctcttg	tcagaaagta	ggattcttgg	agctgctgtc	attgctgctg	tggctgctct	112920
gatgctgcct	gggagtcgaa	ggagagaaag	gaacaaaaca	aaacaaccca	ggggatttcc	112980
tccactctct	ttgatccgtg	agageceet	tteetgttee	ticagaccaga	aatagaggg	113040
			gtgtgcagtt			113100
accacacac	gazazzzatt	atasaasats	gegegeagee	coagettetg	ageceaggee	113160
aggaggtgct	ggacaaactt	gccaggagca	cggaggtact	gcaagttetg	attacticte	
			catttgtcca			113220
tgggagagac	agaagagtgt	gcttatttca	tcttgacata	cttattagga	tttcatatca	113280
aatcaacgga	tgatattctc	tatattaatt	tgctgttttc	cctttagcaa	gcacattagg	113340
			gtttctgtca			113400
						113460
*****	LLLyagacyg	aguillactic	tgtcctttga	ggcarcgccc		
			tccacacaag			113520
ttattcttcc	attttagcag	aattcatgtt	gctccaatag	gggctgtctt	caaactgatg	113580
ttttctcctt	cttagtgcct	cagagtagat	cctgttcaga	tacgttataa	caggttaata	113640
tgagtttatt	ttggtgtaaa	agtactttga	aattcatgca	tagttttttc	atcatatoca	113700
ttttccatac	ctttgaacac	cccatataa	ctctcctctt	CCSCSSSCCS	aacaatgaaa	113760
aaccaccett	atastassa.	tttattttaa	aataggaact	ananatanta	taacccctac	113820
	gugatggaag	LLLALLLLEGG	uucayyaact	cacagigate	Laageeeege	-4J02U

-42 of 185-

tattcatgaa	tataattcat	tactggagtc	caagttgctt	tttggttttt	gaagttctct	113880
					tatateteca	113940
					aggtaagcag	114000
					aattttcgtt	114060
		cttaacatgg				114120
					gcattcggtg	114180
		agatgggctg				114240
gctgagcagc	cgggccggcg	ggcggctacg	ctaaccggca	cagaccaccg	gatggactgg	114300
ccggcagccc	cgcaccagtg	cacgaagtgg	gcgggacaga	aacttctggg	gttggaagtc	114360
cagtgaggct	aaaagccggt	accaaagtct	ctaggcatca	gggctgcagc	ccaagagtct	114420
					ctccgtctca	114480
		gtgggcctga				114540
		ggcctgtgac				114600
		catttggcac				114660
						114720
		gtaactttat				
		agtttttctt				114780
		agatcaataa				114840
tcccagacaa	tattccaagc	actttttatg	gatagactca	ttttaacttc	taaagaactt	114900
tgtgggataa	atacagttat	tttatagatg	aagaaactga	agcacagaga	agttaagtgc	114960
tttgtccagg	gtaacagctc	agatatggca	gagtcaggat	ttgaaactag	accctcacat	115020
accttaactq	ctatactata	gcagtgtttt	tcatactqta	ggttgggacc	agccttctct	115080
		aaaaaaaaaa				115140
					ataaaatata	115200
		tatagtatat				115260
		atatatatat				115320
					tatgtatgtg	115320
		atttcttata				115440
		cttaggtgaa				115500
		ttctcataag		_		115560
		atgaaataag				115620
		tccttagtgt				115680
cagcaagacc	cctgttagtc	tcagctgtgt	ttcttaaatt	ggcccactgt	accttccagt	115740
tagctattct	ggggtccatg	tcatgttggc	tccattttcc	ttttctttct	cccacacaga	115800
		taggcctggt				115860
		actgagtttt				115920
		ttttatgtgg				115980
		agggatgttc				116040
		ttttgagggg				116100
		tttcaagtca				116160
						116220
		agcttaatca				
aagtettetg	aaggatcaag	ttgataacat	tttgtgatta	aagaatttga	gaaaaccccc	116280
acccagtgt	ctatcattat	atattttagg	atgitaatta	cctgtgtggc	tttaggeaag	116340
		ccattcttaa				116400
		ctgtccttca				116460
		ctttgcatag				116520
		gtttttatgt				116580
tgcactacct	ccttcatctt	ccacaaatgt	ttgaagtggt	agaatttta	aaaactttga	116640
aggtacagct	gacagaattt	gctgatggtt	tggaagtgag	tggtatgaga	gggaaaaaaa	116700
ggaataaagc	atgactgcat	tttttgtttg	tttatttatt	tatttttaad	acqqaqtctc	116760
actotogoca	gactagagta	cagtggcgtg	atcttggctc	acggcaacct	ccacctccta	116820
acttcaaaca	atteceetee	ctcagcctcc	caagtagetg	aaggaaacca	cactcaccac	116880
caccetace	taattttt	ttttgtattt	tagtageeg	ggactacagg	catattacia	116940
acgeeegge	caattttttt	acctcatgat	cagcagaaac	teresteres	agetestese	117000
aggatggttt	totalcicity	accicacyat	-tattate	Lygeeceeda	aagtgctgag	117060
gutacaggca	tatatataay	catataaagt	gryrrarage	acacaacag	gtatatatat	
		tgataggaat				117120
		ggaaagaagt				117180
cacatagaag	attgcttaga	tgggagcaag	gacaatttat	ctagagtcac	aggaaagaat	117240
gcagtacacg	ggtagagatg	caggtgagtt	gaaagatgtg	agagatgatg	gaaataattt	117300
		caaggaagca				117360
agaggtgtta	aatatttgag	aaaggagatg	tactgtagaa	aaaaaaaaa	ctcagtttct	117420
		cagaaccctt				117480
		agatgattgt				117540
tcagttcagt	tctcacacto	tttacctgga	gatagcatca	gatcccacag	attgaggact	117600
	3			5		

-43 of 185-

ctqtcccaca	agactgcctc	cacttcagat	gccagtctca	agtacaagtt	ataacetata	117660
cttctgactg	accttctata	aattggagtt	cccacagtcc	cctccttggg	ttcaataaat	117720
ttactagage	ageteteaga	actcagggaa	atoctttaca	tatatttacc	catttattat	117780
aaaggatatt	acaaaggata	cagattgaac	aggcagatgg	aagagatgca	tagacaagat	117840
atgggagagg	ggcacagagc	ttccatgcac	tetecaggie	atgccaccct	ccaacaacct	117900
				tccttttggg		117960
agacttcatt	atatagggat	gattgatgat	tractatter	tgatcagete	aacettcace	118020
ccctcatca	cacaggeat	gaccgaccac	ctcactgg	caaacgtgta	attetecatt	118020
				aggccacagc taggcgctgt		118140 118200
actooctasa	cccaaaagaa	aatatataa	gactataata	ccagcacttt	acyctaayaa	118260
accegecaaa	tcatttcaca	ccatcacatc	ananggagg	tggtcaacat	gggaggetga	118320
				ttgtctgtag		118380
				gcagtgagcc		118440
				agaagaaaaa		118500
aaaagtaaa	ggcccgggcg	taacatattt	accettgeece	cagatttgta	ttatataaaa	
aaaaccgggc	aaayactaaa	caacacaccc	cacagracea	cagatttgta	ccgcccagga	118560
				ggtttcatga		118620
aaagudatga	tacacaaagtg	agactaggea	teatgitata	tggtttttcc	agecatgett	118680
aacagctagc	taaatageta	attguttege	tgcagtttat	tttagcagtt	cettatttta	118740
gcacacttca	tyttttaaaa	tttctaccaa	taacatttta	ataaactttt	ttacagataa	118800
cttcacaaat	ccataatttt	ttaagttaca	accccagaaa	tagaattgct	cattgaaagg	118860
grargereat	ttttaaagtt	atgctagaaa	ctgccaaatt	gccttcagaa	aaaggtgttt	118920
gtatteecae	taacaccagt	gttagtttte	ttgtgccctt	gctcaagtat	acatattatt	118980
aaaaacaatg	ttgggccagt	ttactagata	aaaggtgtag	tgcctcctta	ttctaatcta	119040
tract	agcgagcacg	tatgtettt	cacgttggtc	attttatgtt	tgttcctttg	119100
cggattgtca	tgteettige	ccatttttt	tttggaacat	ttcttagtag	tttataagag	119160
tettiggtat	tttaatgata	gtaacetttt	aactgtcatg	catgctgcaa	atctttttc	119220
tattatta	ccitiguati	tegeeeeegg	agggttteta	tgtataggaa	ttaaatttta	119280
cgrtgrtaaa	ttagatt	tetgetttt	catatgtact	tcaaaagact	ttctatttta	119340
				aacctcttaa		119400
atttaatta	ttagaagt	tyattuacaa	gegegeatae	atagtttgaa	cccagcggca	119460
accidate	tracaactic	citigeagea	aggatttgtg	gagaagatgg	acaggtggat	119520
				caatggagca		119580
ageteacate	nananana	geatettagg	gaarregggr	tcattgttag	gaatgggctt	119640
tatasagga	addaddadgt	acticigaga	ttatttaa	tttggatatt	cacaagatca	119700
acadageac	ttttattt	ggctaacagt	ttetttaaa	tataaattat ttaaaataat	grgaactctt	119760
ttotosasta	atttagggag	taatgctaat	tataataat	ctadadtaat	contracts	119820
atttatttaa	atteggggag	tetteseste	rgtagtgatt	atgactatta	gaattggttt	119880
attantacat	actatigcacy	tanatagaag	geteteetaa	tttgttagtt gaaatggctc	aggetttaag	119940
ttagatttat	tactactac	tagacttana	cagacccgcc	gaaatggete	cagaggtttt	120000
tatagacciac	atactatata	taagaggtgg	ttagaatetae	tcattctttc	acttaacatt	120060
accagaaga	gracerate	caagacgtgg	ttaggcatag	tgccagtctt	gaaggaagtt	120120
ttasatatas	aaaayacaca	aggeacgeeg	222222	gtaatatgaa	graggeargra	120180
accastcacc	ggggagaact	taggagagtaa	aaaaaggtgg	gagagattac	atacaggtaa	120240
aggaarcagg	tategacacca	chatattt	ggtagtgttg	acctaggcct	ccaagataca	120300
teasastttta	cattttata	atataacaa	cccacctaaa	ctctttcctt	ggtegtteee	120360
teteterete	ceccityce	atgradage	accetagega	gtttctgcga	agteaceatt	120420
tatatanah	ccagartgaa	gracea	grggaactgt	ttacctggct	gacattetet	120480
attacage	agecetett	cattletete	aggtaaagtc	tgcatttctt	ttcacactct	120540
accegageat	tecageetet	aactattaat	gerggggeee	tgtctatagg	aaataacaca	120600
gaagagccaa	greattteea	aaaagatgta	teattgttte	aagttgtttc	tgatggcaag	120660
agraarrraa	taatatatta	gagagaacat	gaaaattcaa	tgtattaaat	aactctaatt	120720
ttgagaaacc	taattaaact	actgcatgta	agagagtgca	tgtttttaat	tatttggagc	120780
tattttaaaa	ccacagaatt	tgaaacttgc	ttccagtgca	taaattgcag	accagacttc	120840
agaagagaaa	aaaagtagta	aaccccccc	tatgeteate	attttactt	tagtcacttg	120900
acaggattgc	ccagtgaaga	agcatttgca	acagacaatg	agtatattaa	tcttttgag	120960
gcatacagtt	tagtataatg	cccttgtta	ggcttcaaca	agtgaaatta	ttttgttgga	121020
aagcaaacga	ctattaagta	gaaagaggat	tcccagtctc	acaaagcagt	aatttagaca	121080
total	cctcttaca	agaacacagg	tactcagttg	atttgttttc	tcactccctt	121140
cotttgctat	aagtttaaat	caacaatttg	tttaggttaa	tatgtcctca	tggaatggtg	121200
yaaatgatca	gatataaaat	actiggittg	gttagtttac	tctttatatg	tttgctggca	121260
ayyaaccaca	aatccagttt	agcacaacct	ttactctagt	tcactaaaag	tttgcatcca	121320
gergegeagg	Lagigitigi	LLCLLGETAA	ctttttttc	gtctaaaaga	atactttaaa	121380

-44 of 185-

acttttcaat ctcaaatgac tgtaacttgc tgacaggtgt taacagaaga agtagatctt 121440 tttgtttttt gcttatgacc tgtattttaa tatttgagct tatagattag agattgtgag 121500 agaaatctgt ttatagtctt attttccctt gtgtattttt tcttcctagt acatggaaaa 121560 agaggatgca gtgaatatct tacaattctg gttggcagca gataacttcc agtctcagct 121620 tgctgccaaa aagggccaat atgatggaca ggaggcacag aatgatgcca tgattttata tgacaagtga gttatattga tagatggatt cagcagatac ttattgaaca tttgatatgt 121680 121740 tttgtggaaa taaagatgaa taaactcagt ctctgttgtc aaggagctca caggaggcag 121800 cataaaagct gcttttatat ggtgtttgta aagctttggg ggttcttaga acaaaagttt ctgctgggaa aggggaggtg tatgtggggt aaacaggatg gcaatggtgg tgttcaagga 121860 121920 gtgtttccca gaagagagat tttgtttgga tcccaaagaa agaagggaat tttgctaccc 121980 agagaaggca gaaaacaaca ttctaggcaa aggcattggc ccagaagcca tggaaacgta 122040 ggggaaagtg gcactttcaa gaaacttgag titagataat caaaggagtg gggaataaat 122100 atgaggatgc tggtactaat tggaatagat tgtaagggac cttgaatgcc tatttatggg 122160 tatattatac tttctgtata aatctgctca ggcacgttgt taattagttt tttattagtt ttcactgaaa atgagaggat ggaaacatca tacagtaaac aaaattgaaa atatctggtc 122220 122280 aggeagatga tgagettgtg geeagetetg taacgtatgg tattetttte atttaacttt tettaetetg taaaaaaagt aattegtggt eggeaeggt ggeteaetee tgtaateaea acaetttgag aggeagagge aggtgaateg ettgageeea ggaatttgag accageetgg 122340 122400 122460 gcaacatggc aaaacccgcc tttactaaaa atacaaaaat tagctgagcg tgatggcgtg 122520 egectgttgt cetagetact taggggeetg aggeagaagg atcacetgag cettgggagg 122580 togaggotgo agtgagotgt gatocactgt actocaccot gggcagggca gtagagtgag 122640 accetgtete caaaaaaaa aaaaacaaca aaggtaattt gttatttgta teettaagca 122700 aatgctaaag gggtaacttg gggatagaga aaagtccaca gatgttaggg tttgaagaca ctaatagtat ctaggccagt ggttcctgaa cattagtctg tgggctcttg ctgggctgtc 122760. 122820 tgcataggaa tcacctgaga gcttattaaa aataggtttt caggctggtt gcggtggctc acgcctataa tcccagcact ttgggaggct gaggcaggcg gattacttga ggtcaggcgt 122880 122940 tcaagaccag cctggccaac atggtaaaac cccgtctcta ctaaaaatac aagaattagc 123000 caggcatgat ggcacacacc tgtaatccca gctactcagg aggctgagga aggagaattg 123060 ctcgagcccg ggaggtggag gttgcagtga gcggagatca tgccactgca ctccaggctg 123120 gctgacagag ggagactctg tctcagaaaa aaaaaaaaa ataggttttc agtctgggta 123180 ceggtggctc acacetgtaa teccageact ttgggaggcc aaggcaggca gateacttga ggtcaggagt ttgagaactg cetggccaac atagtgaaac ettgteteta etagaaacta 123240 123300 caaaaaatta actgggcatt ttgacgggtg cctataatcc cagctactag ggaggctgag 123360 gcaggagaat tgcttgaacc cgggaggcag aggactgcat ctcaaaaaaa aaaaaaaaa 123420 aaaggtttcc agtccccctg tctcagaaat tctgattctg caggtttgag gtgtgaccag 123480 gaatetttat ttttagaaga cataccagat aattetgata aatagecagt ttagggatgt 123540 agtctaattt tcctattttg caagtaagga aaataaggcc cagagaggta atgattttct 123600 caaagtcaca gaacaagtta gtggcagaat ttggactgga atgcagttet taatgttetg 123660 tocagtgttt attetggtac agtatgtttg tagaaggtat tacgtaagaa acattgttat atagatgttg agataggaag agtttacatt tagaaatttg gtctaaagaagtt cctgaacatt caagtcgtgg aggagtattg accaactttac tcaatacaac ataggagatt cacattttgt 123720 123780 123840 tacaaaaatg ctgatttaaa aggagagttt tettttttt ettetttt atttttgag 123900 atggagtett getetgteac ceaggetaga gtgeagtgae acgateteag eteactgeaa 123960 cetecacete etgggtteaa geggttetee tgeeteagee teetgagtag etgggattae 124020 aggtgggggc caccacgccc agctaatttt tgtattttta gtagagacag ggtttcacca tgttggccag gccggtcttg aactcctgac ctcaagtgat ccacccacca ctgcctccca 124080 124140 aagtgctggg attataggcg tgagccactg tgcccagcct gcttgttttt gtatcatata 124200 tatgcatcat cataatcatg cattatcaac ctttgtattt ctgtcaggac atagaaacca ttagagtgct tggaagagag ccttttttt tttctcgcat ttaatgcttt ttttggtatt 124260 124320 catttcataa tcagcttacc aaaacattac ctgcattata ccccatcaag gtagaaatct 124380 124440 124500 124560 aagtteteag etegettttt agggaaaatg accatgtett cettteetat aaatteettt etatetatea agteeteaac agagaatagg tacceataaa tatgtgattg ttagtteet 124620 124680 tgcctcagtt gtagtctgat ccttacagct tttaaacaac agtagagttc accgtcaaga 124740 actaaggatg gttggcaggc agatagaaag gtagcaagtt gacccaacta tetetgggga agtgggaaca aagaaaggtt acatcagcac tgtcatcaca tagctctata gttctaggcc 124800 124860 tgcaggetea ateaagtage ettgtataag attetetgga ggaggtgetg aaagttgett atacttgeta tggaatttga ttttaetteg gatatetttt taccataggt aetteteet 124920 124980 ccaagccaca catcctcttg gatttgatga tgttgtacga ttagaaattg aatccaatat ctgcagggaa ggtgggccac tccccaactg tttcacaact ccattacgtc aggcctggac 125040 125100 aaccatggag aaggtaaccc agaacttcaa acgtatcaaa ctacaagaag ttttattggt 125160

-45 of 185-

agaactcata	aaatataagg	tgggaaaacc	aagcagaata	gcacagtgga	aattgaagca	125220
				ctggtatgta		125280
				ggtcctgtac		125340
gatcaaagct	ggtagtgcaa	taataacaaa	agttagaaaa	aataaatttt	aataaqtaaa	125400
				gaacaaaaca		125460
				actatacttt		125520
				gtaaaacagc		125580
tccttcagga	ggtttccaga	aggaggcatt	gttatcaaag	gagatgacgg	ctccatgcgt	125640
gttactgccc	ctgaagacct	tccagtggga	caagatgtgg	aggtgaaaga	aagtgttatt	-125700
gatgatcctg	accctgtgta	ggcttaggct	aatgtgggtg	tttgtcttag	tttttaacaa	125760
				gcttataaaa		125820
atgaaaatat	ttttgtacag	ctgtatatgt	ttgtgtttta	agctgttatg	acaacagagt	125880
caaaaagcta	aaaaaagtaa	aacagttaaa	aagttacagt	aagctaattt	attattaaag	125940
aaaaaaattt	taaataaatt	tagtgtagcc	taagtgtaca	gtgtaagtct	acagtagtgt	126000
acaataatgt	gctaggcctt	cacattcact	taccactcac	tcgctgactc	acccagagca	126060
acttccagtc	ttgcaagctc	cattcatggt	aagtgcccta	tacagatgta	ccatttttta	126120
tcttttatac	tgtattttta	ctgtgccttt	tctgtatttg	tgtttaaata	cacaaattct	126180
taccattgca	atagtggcct	acgatattca	ttatagtaac	atgtgataca	ggtttgtagc	126240
ccaaaagcaa	taggttgtac	catatageca	aggggtgtag	taggccatac	catctaggtt	126300
tgtataagta	cactctgtga	tgttagcaca	atggcaagca	gcctaacgga	aattctgttt	126360
attgattgat	tgattgattg	attgattgag	acagagtttc	actccattgt	ccaggctgga	126420
				ccaggttcaa		126480
				caccatacct		126540
tgtattttag	tagagacagg	gtttcaccat	tttggccagg	ctgttctcga	actcctgacc	126600
				ttacaggcat		126660
geeegggeag	taactgaaat	tecetaatge	catttteett	atctgtaaag	tgacgataat	126720
tattaagata	attactaaagt	catcottage	attaaagtaa	ggtaatgtat	ataaaataca	126780
				gttaactact		126840
gratgracet	atacttccac	ctactcagag	agcagtatca	aaaattagct ggaggattgc	ataaaataa	126900 126960
gaattaaagg	ctacaataaa	ccatattcat	georgaaget	tccagccttg	atgageergg	127020
aagaccctgt	cttgaacaat	taaagaaggc	attatoccoc	aacgttagct	tagaaatgat	127020
ccacatatat	caccagtaac	tatcaacaga	attogaaccc	tagttttggg	tattatgatc	127140
acaaggtatt	attaatagct	tattaataat	aaagcgttgg	ctaggcacgg	cgactcacat	127200
ctgtaatccc	agcactttgg	qaqqccqaqq	tagatagata	acctgaggtc	aggagtttga	127260
gaccagcctg	accaacatgg	agaaacccca	tctctactaa	aaatacaaaa	ttagccgggc	127320
gtggtggtgc	atgcctgtaa	tcccagctac	ttaggaggct	gaggcaggaa	aatctcttga	127380
acccgggagg	cagaggttgc	agtgagctga	gatcgcacca	ttgcactcca	gcctgggcaa	127440
caagagcaaa	actccgtctc	aaaaatataa	ttataataaa	taaataaaag	taaagtattg	127500
atgtttgtga	atgatttatt	cttctaatga	actagaggag	atttttccag	gaatttcaga	127560
gccagtgagg	ttatgttgct	tgtatgtgtc	atgtgtatcc	aggtgaaaaa	acttaattaa	127620
acgctattat	ataataccat	acataaaaac	tgaattttag	gaatactgaa	gaatgacata	127680
tagaagtcaa	atcattaaat	agctagtagt	aaacagaata	gagtgtcagc	tgttacccaa	127740
tgatgataat	attttcacga	ttaaaattaa	accttttctg	attttaaagg	aaaagttcag	127800
atctgtatca	tataaagaat	gtaaattttc	agggtaataa	aattaaaatg	cagagagaaa	127860
aatgcaaaaa	tagttcttac	tagatgtgtg	tatgtaagga	acttagacta	attttaagaa	127920
cactgtcaag	accctggtag	ttaggtagga	aaaaagacat	gaatgattca	ttcaacaaaa	127980
actttgagta	tttetgtget	agatggtagt	gttacagtgg	taaacaaaat	aaatgtgttt	128040
ctgctatcct	ggagettagt	ctacaaaaaa	ggtacatatt	ggccgggcac	ggtggctcac	128100
gcctgtaatc	ctagcacttt	ggaagatcga	ggcgggtgga	tcacctgagg	tcaggagttc	128160
aagaccagct	tggccaacat	ggcgaaaccc	cgtctctact	aaaaatacaa	aaattaactg	128220
aararaaraa	eggacacccg	taateeeage	tactcgggag	gctgaggcag	gagaatcact	128280
rgaacetggg	agacagaggt	ccagugage	cgagatcatg	ccactgcatt	ccagcccggg	128340
				caacaaaggc		128400
caegaacaca	actatitaca	cotacost	aacaagttet	catgtttatt	acctgcttgt	128460
tragicacaa	taataattat	taaatataa	yaaatataaa	taataaacat	gagaactcat	128520
tttaacaat	atttossss	aaaacytada	CCSSSCSCS	tatgtacaat attttgatat	caggeattta	128580
attoasatto	ataatottot	tttgaagact	gyaaacayat	tatatattaa	actyctagtg	128640
taactcagca	atcacacacac	taataaatta	tettaagaaa	atcagtttga	agicadaali	128700 128760
aatatataca	caaagacttt	aacatttato	ataaaccaca	aaaatcgagt	aaytaaaatC ttcaaattat	128820
atcctatoga	ctattttctc	ctaaaaagta	ttaatatcaa	Ctttatgtaa	tactttcctc	128880
acaaatattt	tgggggagaa	aacccaacaa	aattacatgo	attgtaattt	ttttttt	128940
	J_J_J_G~G~~					220220

-46 of 185-

tttttttta	gacagtcttg	ctccagcgtc	caggctggag	tgcagtggtg	caatctcggc	129000
tcactgcaac	ctccatctcc	caggttcaag	caattctcct	gcctcaggcc	tcccqaqtaq	129060
			agctaatttt			129120
gggtttcatc	atqttqqcca	ggctggtctt	gaactcctgg	tctcaaqtqa	tccqtctqcc	129180
			gtaagccact			129240
			taatacttgt			129300
			cagtagaatt			129360
taaaacagtt	ttagttggat	ttgatttcaa	ctttaaaata	atgcttttca	tctctatcag	129420
			ctttattata			129480
			gggaacgtgt			129540
			agttctgaca			129600
			catacacatc			129660
			gtggaaaaaa			129720
			gaggctgcgg			129780
aggaattcga	gaccagcctg	accascataa	tgaaacccca	tctctactaa	aaatacaaaa	129840
attageeggg	catootooca	ggcacctgta	atcctagcta	cttgggaggc	tgagggagga	129900
			caatgaacca			129960
agectagata	acaaaqtqaq	actototo	aaaaaaaaa	aaaaaagaga	gaaataaaat	130020
			tttgtggtaa			130080
			attctatttg			130140
aataaatcaa	gtaatatgga	atatattcat	agcctctgaa	gagetettta	totaagtatt	130200
tatttaggat	actttttqta	aaataaqtqa	atgaattctt	aggteteett	ttttttttt	130260
ttcttgagac	agggtctcct	cactacaacc	tggaaattct	gggctcaaat	aatccaccca	130320
			gcatgcacca			130380
atttttttt	ggccaggcat	gatggttcac	gcctgtaatc	ccagcacttt	gggagaccga	130440
			gaccagcctg			130500
			tatggtggct			130560
cttgggaggc	tgaqqcagga	gaatggcttc	aaccagggag	tcqqaqqttq	cagtgagccg	130620
			cagagtgaga			130680
ttttttaaa	tgatggagtc	ttgctgtgtt	gctcaggctg	gtcttgaacc	cctgacctca	130740
aatgccgcct	gcttcagcct	aagtttcttt	tttttttgta	aagagacagg	gtcttgctat	130800
gttggccagg	gtagtctcaa	actcctggct	tcaagcagtc	ctcccacctt	ggcctctcaa	130860
agtgctggga	ttacaggcgt	gaaccactac	ctataatgtt	gtgtttcact	caaggccttt	130920
tgatttcgtt	ttgcattacc	gtgccacatt	gtgcatttcc	ttgacctttt	ttgggttttt	.130980
tggagtgctt	tcatatgtta	aaccatacct	gattctcctc	aaaatcacac	aaagtagaat	131040
atcctaagac	aagaaatcta	aggaggcata	aagaagttaa	ctggttttat	taaactcaca ·	131100
cagtaaatga	tagagccaga	aatattcccc	ttctagtgtt	cttcaccatc	agcttaatgt	131160
			aataaataac			131220
ggccttggat	aaattttcct	aatttgtaag	agagtattat	cgtattgcca	tttacaaagc	131280
			ttacctagga			131340
tgccattttg	gttttttgat	ataggttaga	atgtcttggt	tttttttt	ttttttttg	131400
gtttttgttg	ttgtcattgt	ttgagacagc	atcttgctct	gtcgcccagg	ctggagtgca	131460
atggcacgat	cgtggctcac	tgcaacctcc	acctcccggg	ttcaagcaat	tctcctgcct	131520
cagcttcctg	agtagctggg	attacaggca	tgtgcaacca	cacctggcta	atttttgtgt	131580
			gtcaggctgg			131640
			gggattgcag			131700
ctgaatgtct	tgtttttgat	taggcactta	agaaaggcct	aggtactaac	cataaaatat	131760
attttatac	cttttgttga	tactatatat	atagaaaact	gcacttatca	taaccttaga	131820
			acccatgtga			131880
cagcattatc	agcccctcta	gaagecetet	tgggcccctt	ccattcactg	teettettgt	131940
caccagggta	gctactatcc	tgacttttga	tggcatagat	tagcattacc	tgttcttgtc	132000
attttataaa	taaaaccata	ctgtgtattc	ttttcttgta	cagctttatt	gtgctaattc	132060
acatttacat	catacaattc	agtggttttt	atatggtcac	agagttaggt	aaccattacc	132120
acatcgattt	tagaacattt	ttttcactcc	agatagaaac	cccctttact	taaactccaa	132180
atccccact	ccaccagccc	taggcagcca	ctagtctact	ttttatctct	atagagacaa	132240
tagatttgct	tattctggac	atttcataaa	catggaaccg	tatattatgt	ggtcttttgt	132300
tgccaactgt	ctttcactta	gcatcatgtg	ttcaaaagag	catcatgtta	tccatgtttg	132360
gcatgtatca	gaatttatt	cctcattatg	gccaaatatc	ccattgcaag	gatttatgac	132420
			catttatcaa			132480
			tctttttgtt			132540
			gcacaatctc			132600
			cctcccgagt			132660
accaccacge	Coagetaatt	ccctagtaga	gatggggttt	caccatgttg	gccagtctgg	132720

-47 of 185-

tctcgaactc	ttgacctcaa	gtgatccacc	catctcggcc	tcccaaagtg	ctgggattac	132780
			ttcatttctt			132840
			aacttattga			132900
			cagcagtgta			132960
			tgtttttaaa			133020
gttctacttc	agtgtggttt	ttgcacttct	ctgatgagta	atgatgttga	gcatcttttc	133080
			gaaaaatgtt			133140
			ttttgagacc			133200
			actgcaacct			133260
			ggattacatt			133320
			agggtttcac			133380
			ctaggettee			133440
			ttttttcttt			133500
			gcacaatctt			133560
			cctccccagt			133620
			ttttagagac			133680
			tccacctgcc			133740
			aattttctca			133800
			ccttggcctc			133860
						133920
			catttttaaa			133920
			taaatgtccc			
			ttcctctacc			134040
			aaggtctcat			134100
			tcaacttcct			134160
			atacacacta			134220
			cccaagttgg			134280
grgarcece	eacetetgee	ceceagageg	ctgggattac	aggtgtgage	cacacgcaac	134340
etgtettte	actattaata	gegeeeeee	gcttcagcct	ceegageage	tgggattaca	134400
			ttgcattttt			134460
			cctcaggtga			134520
			gcacccggcc			134580
			tatcttcatg			134640
			agcctttcac			134700
			aaatagaatt			134760
agactgtttg	atgagagage	atagaaatac	aagtgatttt	tacatgttga	tettgeaact	134820
teaactttga	taaatetgat	tgttagetet	aatagttttc	ttgtggattc	tttaggattt	134880
			agagatagtt			134940
			caaaaatctt			135000
			tgatgttagg			135060
			ttcctgattt			135120
			atgttctttc			135180
			gaaatattaa			135240
caacettgea	tacctgagat	gaateteaet	tggtcatggt	gtataatett	ttcaatatge	135300
			aagattttgt			135360
			taaatgtgag			135420
			tccgtctgta			135480
			ataagttttg			135540
			gaattagttg			135600
etggteeete	tttctttt	gtttaactgt	gtatcttgga	gattgttcct	teteaacaca	135660
tgagageege	tttccctacc	ctcccacccc	tgctatagag	aggtctataa	grgrergree	135720
			gtcggggaca			135780
			tgtatataag			135840
			atttctaggt			135900
cacaaaaata	ccaattctgg	cccccccgc	ggaggtgggg	agcaggaggt	agaatgctgg	135960
aggagaactt	gctgtactca	gctggctagt	cattttagaa	aggtttcctt	agcttcttt	136020
tgtcatatgg	cctcaccaag	aatcaaaaac	attcctattt	accctgtaaa	catggggctt	136080
			tgacagcttt			136140
rgrgagtaca	gcacatttgt	tggaacttag	gtcgttaaga	atgtcttata	aattcataca	136200
			tttttgatac			136260
			cactgcgacc			136320
gattctcatg	tctcagcctc	cagagtagct	atggttacag	gcatgcacca	ccatgcccgg	136380
ccaaccttt	tatttttagt	agaaactggg	tttcaccata	ttgaccatgc	tggcctcgaa	136440
ctcttggcct	caagtgatcg	gcctgcctca	gcctcccaaa	gtgctgggat	cettgtattg	136500

-48 of 185-

ggtaaaagat	gaatattgag	ggctgcatgg	tggctcatac	ctqtaatccc	agcactttct	136560
			aggagggtga			136620
gegeeattge	acttcaacct	accasttata	ggcttcagtc	actatacaca	agetgtacat	136680
			agtatgaggt			136740
gttaagcatc	ttaatagtga	cgaggttgag	tgaaagttac	ttctatttca	aacactgaag	136800
aaaattttgt	acaaatctgt	cacattccaa	gcccaggact	gattgtttca	tatacttcta	136860
attttacaat	ttctattgta	gtccagtgtg	aaaaaagcca	gtattaaaat	actgaaaaat	136920
tttgatgaag	cgataattgt	ggatgcggca	agtctggatc	cagaatcttt	atatcaacgg	136980
acatatocco	ggtaagctta	gctcatgcct	agaatttta	caaqtqtaaa	taactttgca	137040
tcttttaaat	tttttaatta	aattttacat	ttttttctaa	tctattatta	tatocccaga	137100
actttcactt	agagtgtgca	gtataatgtg	gtggttaagt	ataaacactc	tagaataact	137160
tectagattt	taatetteee	tctcccattt	attggcagcc	ggtaaggtet	tagtatata	137220
atttattaat	atataaaata	agastastas	actggtaget	getaacetet	cygtattta	
gettetteat	ctgtaaaatg	agaataataa	agtgaaaaga	Lgccaacate	atttactctg	137280
ggctgcataa	ctgatacttg	gaaaaagtat	tectttgagt	ttaagaatta	agttggttat	137340
tcattttagc	ttgtaataaa	aagatagtga	ttcataggat	atgccactta	ctgaaattta	137400
ccacagatcc	aatcataaaa	tcactttctc	ttccctaaag	atagcttgat	taacatgtaa	137460
aggtgtgtaa	aggcttgatt	acactaccct	gatccgtacc	ccaqttccca	gcagcaccat	137520
qaaaaaqqqa	tttcaacata	tttaattact	ttcagtagaa	agtaacagtg	atagaccaga	137580
cacaataact	cacacctota	atcccagcac	tttgggaggc	caaaataaac	ggatcacgag	137640
gt:caggagat	tgagaccatc	ctggctaaca	cgatgaaacc	ccatctctac	taaaataca	137700
222221124	caaacataat	adcadaca	tgtagtccca	ccgcccccac	aggatasasa	137760
addadttagt	cgggcacggc	ggcaggcacc	cgtagteeta	geraerraggg	aggetgagae	
aggagaatgg	egrgageeeg	ggaggcggag	cttgcagtga	gerragarrg	tgccactgca	137820
			gtctcaaaaa			137880
ttgggagact	gaggagccta	gaaagtactt	gaaggaagta	aaaggtttgt	ttgaccacat	137940
tgtatttgga	aagccagctt	tttcagctgt	gtcagctttg	tgtagtgatt	tttagttctt	138000
cttttagaaa	ataacggaca	aggccgggca	cggtggctca	cgcctgtaat	cccaccactt	138060
tgggaggccg	agacgggcgg	attacctgat	ctcaggagtt	cgagaccagc	ctgggcaaca	138120
tootoaaacc	ccatctctac	taaaatacaa	aaagttagcc	agacataata	acatatacet	138180
gtagtcccag	ctactccgga	gactgaggca	ggagaattgc	ttgaacccgg	asaacaasaa	138240
ttacaataaa	ccaadatcac	accattocac	tgeageetge	acasasasas	aaggeggugg	138300
ctgcagtgag	antantana	taaaaaaaaa	tacageeege	gcgacagage	aagactctgt	138360
CCCaaaaaac	aataataaaa	caaaaaayaa	tggacagtaa	acctaaatga	geteatteet	
aaagatgatg	ttattcttaa	gggatggtte	atttatttaa	gaccttacat	aaagtctatc	138420
aattgcgtga	ttttcactt	ctgtaattgt	gtgtatgtat	aatgtaaata	tatatgtttt	138480
tgttttgttt	tggttttttg	agacggagtc	tcgctctgtt	gctcaggctg	gaatgcagtg	138540
gtgcaatctc	agctctctgc	aacctctgtc	tcccaggttc	aagcgtttct	tctgcctcat	138600
cctcccaagt	agctgggact	acaggcacgt	gccaccacgc	ccggctaatt	ttttgtattt	138660
ttagtagaga	tggggtttca	ccgtgttagc	caggatggtc	tcaatctcct	gacctcgtga	138720
tccacccqcc	ttggcttccc	aaagtgttgc	tattacaggc	atgagggagg	acacccagca	138780
			aaaagagaaa			138840
gaagattat	cttcaccada	cacaataact	cacacttgta	atacasacas	tttaaaaaaa	138900
gtaagaccac	ccccaccagg	agttggggc	cacactegea	accedageae	and and a	138960
ctcggcaggc	tanatanata	agecegaaac	cagcctggcc	gacacggcga	tactedgeee	
CLactadaaa	Ladatadata	aagacggccc	taatatatgt	tttagtttta	tgattttage	139020
accettetga	aattttttt	aaggcaagta	aatttgtatc	agttggtata	ttggtaccca	139080
tctatgaaat	aacttattag	gaagatatct	ctaaaataag	atcactttgc	ctaaaataaa	139140
ctgatatatt	gatgttcaca	gaatttttct	tttaaccgac	ttgataaatg	cattattctt	139200
gacgtcaagt	gatccacctt	cctcagcctc	ccaaagtgct	gggattacac	acatgagcca	139260
ccgcacctgg	cattattctt	ataaaaggtt	aaatttctag	ttaaqtttaa	tgtcctcttt	139320
gttcatgtac	cattgcttat	tttcttccct	tcctactcac	agtaatcatt	cttatggtat	139380
acacttttat	ttgcttattt	ttatgtaatt	gatattacgc	tccattctgt	acottotact	139440
ttcattcaca	ataaattta	gacattccta	tgttcatcta	tacacactta	cttcatttta	139500
actacactot	actattccct	atotaatatt	tactataact	catagateta	ccccacceta	139560
ccatagigia	Lycactacty		ttggtatcaa	tgagtattta	agreatities	139620
agttttteee	tettataeee	agtattacag	aggatetett	tttatatgct	tctttgtacc	139680
aagaggcaga	ttaaaaaatt	tttttttgaa	aaaatttttg	aaaaaaatg	aaatgaagtc	139740
tcactatgtt	gcccaggctg	gtctcaaact	cctaggctca	agcaatcctt	ccatcttggc	139800
ctcccaaagt	gctggggtta	caggcatgag	ccaccatqcc	tggcctacat	tttaaatttt	139860
gatagetett	acaatttact	ttgtaaagta	tctgcatcat	tttatqttct	caccagtctt	139920
taataaqaat	acttcatact	tttggctgga	cacagtggct	cacqcctata	atcccagcac	139980
tttqqqaqqc	caaaacaaac	agatcaagag	atcgagacca	ccctaaccaa	tatootoaaa	140040
ccctatetet	actaaaaata	caaaaattag	ctgggcgtgg	taacacacac	ataatacaa	140100
ctactccaca	aactaeaece	adadastas	ttgaacccgg	agardacec	ttagecodag	140160
cttacetcac	aggregagaca	tocagostas	caacagagtg	yayyuyyayy	tenancia	140180
anagardat	thananatt-	attette	caacagagtg	agactetgte	LCaaadadad	
aaaayaatac	ccagaccta	accecece	cagtcttaag	tgtttgctaa	tgagattgag	140280

-49 of 185-

tttcttttgg	tatgtctctt	gattgttcag	gttttttctt	ttatgaattg	actqttcatc	140340
		ttgggtgatt				140400
		ttattcaaaa				140460
		ccttaaaaat				140520
		tttgagatag				
	+-+	ccigagacag	agictigete	tgttgcctag	geeggagege	140580
aatggtatga	ceceggerer	cagctcactg	Caactgcaac	ecetaeece	ctgtttcaag	140640
		cccaagtagc				140700
		tagagacagg				140760
		cgcctgcctc				140820
		tttttgcttt				140880
gtataaacag	atgtatgtat	acacacaact	atggctttat	aatatgtttc	agtcattgtt	140940
agagcaaggc	ctaccttttg	ggtgcttctt	ttacaaaatt	gtcttggcta	ttcttgtgcc	141000
ttttttctta	tttgtgaatt	ttagaattgt	gaattacctg	ttgactcacc	atgttttgta	141060
		attgcactca				141120
		cctactttaa				141180
tagettteta	gatttagatg	aaacgcttta	aattgattgt	tttctcctaa	atttaaaact	141240
dattottada	agttaaagtg	ttctgttcat	tettatttag	gaadatgaga	tttqqaaqaq	141300
		atccgagaat				141360
		acttcatatt				141420
		tttaaactgt				141480
		agtaagtaca				141540
teteetetga	atcaaaagtt	agtgaacttg	ctttgccact	ccagaaggca	catgaatatg	141600
aaaaagcatt	gtctattttc	ttatttaatg	gcaaaatacc	cgacctaagt	tggacttaat	141660
gtttgagacc	gtttatttta	ttaaattata	ttttttctct	tttcttttt	ttttttgaga	141720
cagttcttgc	tctgtcaccc	agaccggagt	gcagtggtct	gaccgcacct	cactgcaacc	141780
		gattttcctg				141840
		ctaatttttg				141900
ttggctaggc	tggtctcata	ctcctgacct	caagcaatcc	atccgccttg	gcttcccaaa	141960
		agccaccatg				142020
ttcctcaaga	ttgatgaaag	taatgaaata	taaaagtaat	gaaatatatg	tggaaaatag	142080
actggattaa	gaaaatgtgg	cacatataca	ccatggatac	tatgcagcca	taaaaaagga	142140
tgagttcatg	tcctttgtag	ggacatggat	gaagctggaa	accatcattc	tgagcaaact	142200
gtctcaagga	tagaaaacca	aacaccgcat	gctctcactc	ataggtggga	attgaacaat	142260
gagaacactt	ggacacaggg	tggggaacat	cacacgctgg	ggcctgtcgt	ggggtggggg	142320
		aggagatata				142380
		tatacatatg				142440
		aatttaaaaa				142500
tcaaaattca	aattgttcat	ttaatcagaa	gagtagttta	gtcaaatcca	agggttagac	142560
		agtgcattct				142620
acacaggaag	atttcagaaa	caaatgtgga	tccataacaa	atootatcta	gaagtttta	142680
atttaattaa	attgacagta	ttttattgag	taaaagatac	taatttttgt	aagaagaaaa	142740
		tttaagatta				142800
		ggaagctgga				142860
		gaaaccctgt				142920
		gggtttaagc				142980
aagaattacaa	acaccataac	taatttttgc	atttttagta	asassaaat	ttcactacat	143040
taaccaaact	gatataatat	caaactcctg	accteaged	atotococo	cttaccatcc	143100
casactacta	ggtttggttt	catgattcac	catatataaa	accigacage	attttattt	143160
						143220
abacastata	acchange	gacggagtct	tactacatha	eccagagetg	gagigeaatg	143220
gracere	ageteaetge	aacctctgcc	reergggtte	aagcaattet	ectgecteag	
terrecaage	agetgggatt	acaggcgcgt	gccaccacat	ctagctaatt	tttgtattt	143340
tagtagagac	agggtttcac	catgttggcc	aggctggtct	cggaactcct	gacctcgtaa	143400
tergeecace	teggeeteee	aaagtgctga	gattacaagt	gtgagccact	gtgcccagcc	143460
atcttattt	ctttctttt	ttttgtcggg	rgggagggg	acagagtcta	gctctgtcgc	143520
caggettgge	tcactgcaac	ctctgcccc	caggttctag	caattattct	gcctcagcct	143580
cccaagtagc	tgggattata	ggćacctgcc	accacgcctg	gctaattttt	tgttattttt	143640
agtagagatg	gggttttgct	atgttgacca	tgctggcctc	aagtgatccg	cccaccttgg	143700
cctcccaaag	tactgggctt	acaggcgtga	gcttgtattg	ggtaaaagaa	caatattggg	143760
ggctgcatgg	tggttcatac	ctgtaatctg	agcactttgt	gagactgaga	tggaaggagt	143820
gttggagccc	aggagggtga	ggctgcggct	gcagtgaatt	gtgatcacgc	cattgcactt	143880
ccacctaggt	aatggagcaa	gaccatgtct	ctaaaaaaca	aaacacaatt	tttttaagga	143940
atactgggaa	gaggtcagtg	gtggttttag	aacagaggaa	gtgccagatg	acctttgtga	144000
ggcattggcc	aggaagaact	ctacagtgtc	tttaggtagc	ttctgtccat	aaggataatg	144060

-50 of 185-

gaatctcctc	cccagtatta	atagaaaatc	tctgagctgt	ttttttttat	ttatttattt	144120
		gagtctctct				144180
		ctgcctccca				144240
		tgtccaccac				144300
tagagatggg	gtttcaccat	gtcagccagg	atggtctcga	tctcctgacc	tcgtgatccg	144360
ctcacctcta	ccttgcaaag	tgctggagtt	acadacataa	accaccatac	ctaacctaat	144420
+++++	ttettattta	tttatttatt	+a+++a+++	++c2c2c2c2	ctatacatat	144480
		gtggcacgat				144540
ttcaagccat	tctcctgcct	cagcctcctg	agtagcaggg	accacaggcg	ctcgccacca	144600
cacccaacta	attttttqta	tttttagaag	agacggggtt	tcaccgcatt	agccaggatg	144660
		tgatccgccc				144720
						144780
		gcctgatttt				
		tcctgcttca				144840
agcataggtg	ttcggtgttt	gcagtttctg	tttgttttat	atgaattaag	gtgtattatg	144900
agcagttgaa	gatatatagg	aaatttttc	ccaaaccact	atctctqctc	gttctattca	144960
		ccttcattca				145020
						145080
		gtcctgggga				
tacattatat	tggcggagac	agtaacagac	aaacaaatgt	agcctgtgta	catgtgttac	145140
atgaaaagca	gggtaggggg	ctgggagaga	gtagtaggga	gtgctatttt	cgaggtggtt	145200
gtcaggaaag	geeteactga	ggaggtggca	ttttgagtag	acctgagege	agggggggg	145260
		aggaagagtg				145320
						145380
		tgatcaagga				
		gaaggtgagt				145440
ggacttgaaa	gtgtcaggga	cacattggaa	gttggagcag	ggaaatgatg	ggatttatgt	145500
tttatttta	ttttatgttt	agtgttttta	agggattgct	ctatcagcta	tttggaaaat	145560
		gagaagcaga				145620
						145680
		gtggattagg				
		aaaagattat				145740
acttgtatta	ttaatttaat	tgagacatgc	ccacataaac	taataaatag	gaatttctgc	145800
agtttggtta	aacacccctg	tatatcctgg	ttcttcttt	agttgtccag	atgtctcttt	145860
		gtgtaggagc				145920
		ccaggcacta				145980
		ctccagcttg				146040
		atgtttaatc				146100
ttatttctct	ttccttgaca	tttcttgtaa	actggaagtt	acacctatag	tcttgatgat	146160
tcatattaca	cattttagat	tagaacacat	catotottot	atatogtott	tttgaaagcc	146220
		cattaaaatg				146280
						146340
		gaagaaagag				
		gccctatgca				146400
cttcccctgt	ggctttctgt	tgcatttgga	atgaaatcta	gcctctttgc	tgttacctgt	146460
ggatgtccct	tactaacctc	tatcacctta	ctttgaacca	ctcctttcat	ggactgagct	146520
		tcttttgctg				146580
						146640
		aagccctgcc				
ctcatctcaa	tattatetet	tcagagaggg	accttcccaa	ctccgatgat	ctaaaateet	146700
ttgtatatac	cactcactac	cacttctttc	ttttctttc	cttttatctt	tttttttt	146760
tttttttt	gagatagggt	cttgctctgt	tgcccaggct	ggaatcacga	ctcactgcag	146820
		atgatectet				146880
addcacacac	caccatactt	ggcttattat	tttacttttt	atagagagag	agtttcacca	146940
22222222	tasta	9900000000	tanantata	beeses	22222222	147000
aggerggree	caageteetg	ccgcaagcaa	Lecacatete	teageeteee	aaagtattgg	
gattatagga	gtgagccact	actcctggcc	tattttctta	ttcactgtct	aaaattatct	147060
tgttcattta	tttacatact	tgtttatagc	ttatttctca	gctggacatg	gtgcctcaca	147120
		ggaggctggg				147180
		tgagaccctg				147240
gearggrage	acacycolgi	ggtcccagct	actugggagg	cagaggcggg	agaaccyctt	147300
		acggtgagcc				147360
acagagtgag	accatgtgtc	taaaaagtaa	ataaaaatag	tttctctttc	atgactagaa	147420
tattacctct	atgtggggag	ggagtttgtc	tatactattt	ggcactatat	ttcctgattc	147480
		ggtaagtact				147540
		gattatctga				147600
		ttggttgccc				147660
		ggatactcac				147720
attgatattt	cttagcactt	tcaagctaat	gcaattctta	gatgatgtat	ctgtgtatat	147780
		gtagaaattg				147840
				- 5 55		

-51 of 185-

tctcagcagt	ttgggaggcc	aaggcgagcg	gatcactgag	gacaagagtt	aagaccagcc	147900
tooccaacat	ggtaaagcct	tocctctatt	aaaaatacaa	caattagggc	cagacataat	147960
ageteacaca	tataatccca	acacattaaa	Sudcessude	aggcagatca	casaatassa	148020
				ctactaaaaa		148080
tagccaggca	tggtggcacg	cgcttgtagt	cccagctatc	gggaggctga	ggcaggtgaa	.148140
tcccttgaac	ccgggaggcg	gaggttgcaa	tgagctgaga	ttgcaccgct	gaactccagc	148200
				aaaaacaatt		148260
				ggctgaggga		148320
LLaaacccag	gaggraggagr	cuguaguggg	ctgataatge	accactacat	recageergg	148380
				agaaagaaat		148440
ggagattgtg	gtctgtgatt	tgttaggaat	cacacagcag	gttagtagca	actacagggc	148500
tttqqttcaq	aataccacct	tgacaatggt	ttatttacag	ttcggctccc	cttcctctac	148560
				tcatcattta		148620
actttaattt	gagttttgaa	accttcataa	tagaggagga	aggaaaagac	taagttttat	148680
tttttaaa	gageeeegaa	atatagaga	~~at~~a	aggaaaagac	ababasasta	
				cagtgacacc		148740
gttgcaacct	ctgcctccca	ggttcaagca	attetgeete	agcctctcga	gtagctgaga	148800
ttacaggcac	gtgtcaccac	gcccagctaa	ttttctgttt	ttgtttcgtt	ttgtttttt	148860
ctgagatgga	gtcttgctct	gtcacccagg	ctggagtgca	gtggtgcgat	gttggctcac	148920
tcaaacctct	atctcctaga	ttcaagcaat	tettetgeet	cagcetecee	agtagctggg	148980
actacaggta	cataccacca	tecetagtte	atttttgtat	gtttagtaga	gatggggttt	149040
				gtgatctact		149100
				atttttagta		149160
ttcaccatgt	tggttagact	ggtctcaaac	ttctgacctc	aagtgatttg	cccgccccag	149220
cctcccaaag	tgctgggatt	acaggcgtga	gccaccgtgc	ccagccaaga	ttgagttttg	149280
aaaaqaqcct	tctgagatta	tgagaagggc	aagcaagata	acttaagaag	ttacattaaa	149340
					gcacgtgccc .	
				agacaaaact		149460
Lyacaaacce	cicacatgic	acticaagga	gettagaetg	actcccatca	tgtagacate	149520
				tttgtgacag		149580
ttgttgccga	ggctggagtg	caatggcgtg	atctcggctc	accacaacct	ccacctccca	149640
ggttcaagca	attctcctgc	ctcagcctcc	cgagtagctg	ggattacagc	catgcaccac	149700
cacgcctqqc	taattttgta	tttttagtag	agacggggtt	tctccatgtt	ataactaatc	149760
				ccaaagttct		149820
				gttctaacca		149880
				tggcatgagg		149940
				aagattcaaa		150000
ggtagcaaga	artagaggga	aggtcggatt	tatgatatgt	ccaaggttga	attctaaggt	150060
gaaatttggt	ggcagatttc	atgtgtaaat	tgggaaggta	gattgagttt	ttttaacatg	150120
ggttttctaa	catgtcaata	gagtgactct	gcaggggggc	ctgacgagag	aacagtgcat	150180
				ttaacactgt		150240
				accettaggt		150300
				tcagttattg		150360
				tttaaagcaa		150420
				atttcattca		150480
ggctggccta	cttcggatga	ttctcagcat	gtgattacag	atgtgggctt	atacatccta	150540
gggagttaag	gcgtactctg	gcttggatag	agtagagete	tttgaaactc	ttctctcacc	150600
cagctagttt	atatagacta	gagaactaga	atgtagcagc	atactctgtc	ttagaagccc	150660
				aaatgtgttg		150720
						150780
				agggtttggt		
				agttctttca		150840
				aaagtttttc		150900
gtttgcaagt	taaatgctct	gttatgtaag	caatataatc	agtttttatt	aatgtaacat	150960
				tatctggaag		151020
				tttttttt		151080
				tctcagctcg		151140
				agtagctggg		151200
				gacaggtttc		151260
ccaggctggt	cttgaactct	taacctcagg	tgaatcaccc	accteggeet	cccaaagtgc	151320
tggaattaca	ggcatgaacc	accatggcca	gccaaataaq	agcatttta	atgtaaaatt	151380
atgcatgaaa	tgtacattca	attttgtctt	totttactac	gatccatgtt	ctcacaagct	151440
				ctacctttaq		151500
				aaattttcct		151560
						151620
coccatguet	aaycaycatg	geacatttat	grecectac	ccagaatgta	ccaagaaagg	T21070

-52 of 185-

gtggtccctt	cttaacatct	aacaattgcc	tggtagtagc	aqtqaaqqta	tcttcaqtca	151680
	ccactgaagg					151740
	tgtagatcaa					151800
	gcttgctttt					151860
ageageggag	gttttattt	coaccageca	tataageaca	attacatatt	ggaggtgaaa	151920
	tggaagacag					151980
gttttttcgt	acatgggaat	gaaattetta	tccaaataag	tagaaattat	gtgcgtaagc	152040
catttgttaa	gagcactgag	tatgtgcatc	tcgatccatc	taatgaataa	ccattatcac	152100
cagtttaaat	tattttctt	aggcccagga	agagctagct	tggaagattg	ctaaaatgat	152160
agtcagtgac	attatgcagc	aggctcagta	tgatcaaccg	ttagagaaat	ctacaaaggt	152220
aaggatgact	tcgttttgtg	taaactaaaa	agtattattt	tccaqqtqta	aaaataaaaa	152280
agaacataag	gggtttcttt	gcctttgaag	gattaactgc	tatagggatt	accttcttat	152340
	tagaaaattg					152400
	gggaaaccat					152460
	aaagttcagg					152520
	cgggtgaatc					152580
						152640
	tcttagccgg					
	agaatcgctt					152700
					tcaaagttca	
	tttgagtaga					152820
	gtagagatat					152880
gtatatgtgt	ggggtgaaaa	cgcatgtgtc	caggtagaga	accccccaga	aattagtagg	152940
ctgaatgatt	gctggaacat	agggctaaga	aaagttcatg	gccagaagga	tctggccaga	153000
gtagagagac	ttagtaatac	acaaggcatt	gggtagtgtc	ttcacagagg	ttatgcctta	153060
ctactgaaga	taaattagtc	ctagagtaca	agcacctgaa	ccaagtttca	aagcaaattt	153120
ttaaagggtc	aaattaccta	acaactgcat	gccaaaacaa	aggcctaacc	ctctttacag	153180
taacacaaca	aaattcagca	cttcacagtg	taaaqttaga	atgtctgacg	tccaggctgg	153240
gcgcagtggc	tcatgcctgt	aatcccagca	ctttqqqaqq	ccgaggcagg	tagatgacct	153300
	gttcaagacc					153360
	agccaggcat					153420
	ttgcctgaac					153480
	ctgggcaaaa					153540
	aaattaccaa					153600
	cagacccaga					153660
	taaatattaa					153720
aatcccacca	ctttaggaagg	ccaaggtggg	taggggttg	agaccagett	ggccaatatg	153780
atassaccc	ttctctacta	aaaatacaaa	aaaattaggt	agaccagece	gcaggtgcct	153840
atactccac	ctatatggga	aactacacaa	caacaatcac	ttgaaccccc	geaggegeee	153900
						153960
actatatata	agtaagccga	32223232	tangeactec	ageceggaea	tanannan	
accordicate	aaaaaaaaa	aaaaaaagu	taaayaaaac	aagagtataa	Lyayaaaaac	154020
	tttaaaagaa					154080
					aggcaggcag ·	154140
	atcggtagtt					154200
	aaattagctg					154260
	ggagaattgc					154320
	tccagcttgg					154380
aaaacagtag	actcgaagaa	ctagctgagt	ttttctttac	tttaggcagt	aagtgtgacc ·	154440
ttttgcaggt	gactacttta	gttcctcatg	tcctcattag	tagatcagag	aaattcgaca -	154500
	aaaagaaaaa					154560
agtcctaggc	ctgcgaagga	atactcattc	tctttatcct	gtgttgatac	ctctctgctt	154620
caacctccaa	ctcgacattt	gcctatagga	tgtacttgga	cattcagcat	aaactacctc	154680
acaccattac	tgaattgctt	catgtgcaca	tgtcccatgc	cacaataccg	gggaccttgt	154740
	atttgtccgc					154800
gtgtgtcttt	accatecete	ttgaatatgc	tctagggtta	attcctagaa	gtagaattac	154860
tctattgaaa	attggcaata	tttttcattc	taatatctat	taccaacata	ggaaagcaag	154920
	agtccttgtt					154980
	tattttaaca					155040
	tcttaaactc					155100
	taggtcactt					155160
	gactcaaaac					155220
	ggttggattc					155220
	tttccaggag					155340
acctateacc	ataattgatg	cacatcatct	tracarecta	accededa	agatagaaaa	155400
		cacacgacge	ccacacagig	"yayıcılad	uyacacaaaa	722400

-53 of 185-

tggtattgtt tacattacta gaaaattatt agttttccaa tggcaataac ccatttatga 155460 gagtgtttta gcctactgga atagacaggg accacatect ctgggaagca gataagcata 155520 gaactgatac ttgatgcaca ctcgtagtgg taactcatcc ctaatcagca ttgtaaagca 155580 ggtgccagag gtggtttgct ttgtccttcc aaagcaggtg agtcagcccc accgagagcc 155640 aggcagettt gagtggcage gtggtgetag cagetteage ggaacagggt gagagttaat 155700 tatgcagtct tcttgacagc ggcattaatt tggaaggaaa ctgacaagtc atgggtcaag tttcagtgac ttcctccttc ctctgatggc agtatatagt tttcacattt taattcctcc 155760 155820 teetgagatg cactatactt aaaaccatte teteceetge taacagaagg gtgtgaatet 155880 ggtttacttt gagcattagg atttgcccct ttggaattct gcactccagt tacttaactt 155940 tecetteaga atacatgtgg aaagaaagaa agaaatageg atgaeteeac ttttgeeect 156000 gtggcacctt gaacaaagca gttcttccca aattatactt ttttttttt taaataaggt 156060 gagcaggatg actggggaga gagaaacatt tgactttgac tgcctccccc attctttgct 156120 gtgagctgga aagtgtgcag ttggtcgtct ttcttctcct ttctttagga tagtaagaga 156180 ctcactcact gcacttctgc tcagttggct tctgcatcgg gatcacacag ccatcagcag 156240 gactgcccag ttggtgagca cactccattg accacgtggc gccagcgctt cctcaatgca catgattgag aggaaagaaa gttctcttag atgttactgc ttttgctcag actttgcaaa 156300 156360 aaaaaaaata tatatatata tgtataaata tataattatt aatcactttt gtccttgaga 156420 aagtettgaa tgaacagaga atttatteea ttgeaatatt tgattgtata gaggeacaet 156480 gtttcatcga cagaagaagc aaaaaggctt tgtgtaagtt tttggtacta tgtaccacct 156540 156600 156660 156720 ctaaaaaccc agaacatgag ccactactgg actitgcctt gtgtttgaag tgtatggcat aaacccaagg tttttattag tcatctatgc tgtgattaat tcattttgtt cttttaacaa 156780 156840 aatatttcca tccacttcac attgcttcaa tctttaacag aaaagcaata taaaggttat 156900 agaataaaat gtggttttgg gcaactcttg ctgcctctgc atgttttgga ataacaattt ctacaagact ctaggctgtt taaactagtg ctttcagtta agataaattc taatcatttc 156960 157020 tttgtatata cattitgigc ttctgagcta gagatgccaa gtagttgtaa actgcttata 157080 aagagaatag cagcaaattt gagactcggc tacttttttc tgccccacct gctttgagac acagaagcgg agtgtggccc gaaattatta gccagattta atatttgatc taaagtaggt 157140 157200 cettgtactc attttaaagt tggaatttga tteeteeaac attgageacc caccatgtte 157260 caggetetgt geattgtgee cacaaaataa gatteeetgg tggagttttt atgggtteaa 157320 ataatcagtt gaacaccctt catetttatc atgttgttga cattgacaca aattgtttaa 157380 aaagaaaaga tattagagag aaagtggtac ctttgtaact tgatgtgtct tcatcattcg 157440 gtaagatttg atgaaagtaa aaagcaaatg tcagccaaat ccagtgaaca gcaataaaac 15750Ò agggagtaac tttttataac tttttctact tggatttcaa cattcagtag agcttttcga 157560 aatgtaagta gtttacagta ctggaggttt gactagttca gtaggaattt ggaggggaag gtcattctga attgtaacaa agtacaaact tctttgctgt tttatttaag tactgagagc 157620 157680 taagcacctg atgaagtgac tgacctctct ccagtgacag tgtttgggta cctgcctgac 157740 ttcaggagtg gggtttatgt ttctacacag tgaccttttc tctcgccctc tcctccctct 157800 tgcccacaca ccagttgatt ggacctgggt tgaactcctg atccagacag gcccaagaca 157860 gttettaatg ttaagaattt tggggeeggg caeggtgget eatgeetgta attgeaacae 157920 tttgggaggc cgagacaggc ggatcacttg aggtcagggg ttcgaggcca gcctggccaa 157980 catggtgaaa ccctgtcttt actaaaaata caaaaattag ctgggcatgg tggcgcacgc 158040 ctgtaatccc agctacgtgg gtggctgaga caggggaatc gcttgaacct ggaggcggag gttgtgcaat gagccgagac cgtgtcactg cattccagcc tgggtgacag agggagactc tgtctccaaa aataaaaata agaaaaagaa ttttgggcta ggtgcagtgg ctcacgcctg 158100 158160 158220 taattacagc attttggaag gcccaagatg ggcagatcac ttgaggacag gagttcgaga ccagcctgga caacatggtg aaactccatc tctactaaaa agacaaaagt tagccagatg 158280 158340 tggtgatggg cacctataat cctagctcct cgggaggctg gggcaggaga atcacttgaa 158400 eccaggaage agagattgea gtgagecaag ateacatete tgeactecag cetgggeaac 158460 agagcaagac tetgteteaa aaaaaaaaga atttggeeag gegeagtggt teaegeetgt 158520 aatcccagca ctttgggagg ccaaggcagg cagatcacga ggtcaggaga tcgagattgt 158580 cctggctaac atggtgaaac cctgtctcta ctaaaaatac aaaacattag ccgggtgtgg 158640 tggtgggcac ctgtagtccc agctactagg gaggctgagg cagaggaagg atgtgaaccc 158700 aggaggegga gettgeagta agceaagate gtgeeactge actacagtet gggegacaga gtgagactee gteteaaaaa aaaaaagaat tttggeeggg tgeggtggea catgeetgta gteecageae tttgggagae caaagtggge ggattaeetg aggteaggag tteaagaeca 158760 158820 158880 gtccggccaa tatggcgaaa ccctgtctct tactaaaaaa aatacaaaaa ttagccaggt 158940 gtggtggcgg gcacctgggg aggctgaggc agggagaaat gcttgaaccg gggaggcaga 159000 ggttgcagta agccaagatc gtgccactgc actccagagc aagactcttt ctcaaaaaaa 159060 aaaaaaaaag aattttgcat ggggaaggag agatactgtt caccatctgg aatggtgctt 159120 ggatgtggca cttacaaaat caggagccag cactgcatgg acaaacagaa gcatgtgggc 159180

-54 of 185-

```
ctgagatage aggtacettg ataaccetga agacateett ggtttetgea tetatteetg
                                                                                        159240
catecttgea ttggactaca ttaatetgte agttateett ataatgattt ttgattttt
                                                                                        159300
ttttttgaga tggagtttcg ctcttgttgc ccaggctgga gtgcaatggc acgatctcgg
                                                                                        159360
ctcaccacaa cctccacctc ccaggttcaa gtgattctgc tgcctcagcc tcctgagtaa
                                                                                        159420
ctgggattac aggcatgcgc caccacacct ggctaatttt gtatttttag tagagacggg
                                                                                        159480
gttteteeat gttggteagg etggtetega acteecaace teaggtgate accetgtete
                                                                                        159540
ggcctcccaa agtgctggga ttacaggcgt aagccatggt acccggtctg ttttttgatt
                                                                                        159600
ttttgaaacc agtctgaagt gagtttttt aattacgtga aaggagtttg gctaaaatac
                                                                                        159660
tgccatactg ccctaatgcc taatgattat gtattctcag catgtctgca aagtactgct gatttctgga gaataatttt tctttagtaa acttcactta agtcgtcatg tgtattctct
                                                                                        159720
                                                                                        159780
caaaatggta tcctaaccta atggagctaa aagacacccc ttgtttttat aacaagcagt
                                                                                        159840
tactgaggcc caggaagggg agaagtccct ggcttgtgag atgatcacca ttagaactca
                                                                                        159900
ggcctgggcc agtgcctttt catgcttctc agatccttcc aaagaataat gaagattata
                                                                                        159960
accgetttta geaattgtaa taaacceaga aatagaaage tttttggtta gagtaetggt
                                                                                        160020
agaagtttgg cgggagagat aatttttaca aaatttgtaa atacctgcca attctatata
                                                                                        160080
ctaggcaagg tototggcot tgtaaaacco otcaaggtta caactttggt ggcccacact
                                                                                        160140
aatagttacc cactgaggcc ctctccgggt gaacattgag cactagagga agcccctctg cttgggcagg actgggcgtg gtgcagagta ggagcggtga tactgtggat tctgggcagg
                                                                                        160200
                                                                                        160260
tggagatggc cagtgatgtc caataaagga cactggaggg agcagtgtga gtaaaggccc
                                                                                        160320
tgagggcatt catgttcagg gagggttgct gcccactggc ttgcttggca cacaggagag tgggtattcc tgccttagta actttatgta aacaagtatt tcctcagtct gttcctctca
                                                                                        160380
                                                                                        160440
aactgcctgc tctggcacat tcagaatgtc acagaactca cctggatgca ttcagcccct
                                                                                        160500
tgcctaaagg tgacagtgca teteetteee caceccace etcataccae tgaagcaeet
                                                                                        160560
gtcagactgg cccagtctgt gggcaaggag cctagagagg gcttagtttc agcttgaaag
                                                                                        160620
gagetgggat ttaccaagaa geaaatgaga gaegaggatt geaacaactg tgecatttee
                                                                                        160680
ccagcttcag ctgactcctg tatattgact gtgccttcag actcatccgt aagtgaccc aggctggcct ctcccacatc acagtaagaa ttccacacac catacaactt ggaaagaggc
                                                                                        160740
                                                                                        160800
tccagctgaa ggaagccca cacttcttc aagtttttct tagtcttctc ttcttggcaa agagtacctt ttgtttcttc taattatgta actattggtt tagtaaatat tcacccattc
                                                                                        160860
                                                                                        160920
agtcacctt taagtggcag gcactgttta cagggacaca ggaaggaata aaaacttgca ggcaccttgg agcttgcatt ctattgaaga ggtaatggaa gttgggatag cagctaaact atgctggtat tggccaggcg cagtggctca cacctgtaat cccagcactt tggaggccaa
                                                                                        160980
                                                                                        161040
                                                                                        161100
ggtgggcaga tcatgaagtc aggagatcga gaccatcctg gctaacatgg tgaaaccccg tctctactaa aagtaaaaaa aaaaattagc caggtgtggt ggcgggcgcc tgtagtccca
                                                                                        161160
                                                                                        161220
gctacttggg aggctgaggc aggagaatgg tgtgaaccca ggaggcgaag attgcagtga
                                                                                        161280
gccgagatgg caccactgca ctccagcctg ggtgacagag cgagactctg tctcagaaaa
                                                                                        161340
aaaaaatatg ctggtagttt tgattcaaga tggcctttgg agcccatgat ttaggtctcg tacccaccaa ggtctactgg aaaacatcag gctctcctgc tatagaccca tagggagagc
                                                                                        161400
                                                                                        161460
tgcagccgag agggggagct gaagagaagt gccccttctg tgtcctgtca gcctcatcct tccgcaagga ccagttgctg tgccactcca ttcacttgct gcaagactgg aggtttttcc
                                                                                        161520
                                                                                        161580
traggtgttg agracetggt ttacaagatg tragcatett gatgcetgag accatraagg
                                                                                        161640
caagtetetg aacagggett acettagagt aaggettaga agaggeegta aagteagtet cageteegtg getetgeaga getttgggae atgtgaatte ttaaaaacaa gaetattgta
                                                                                        161700
                                                                                        161760
cagttactat atgcatgcag tataaaatta taaccttgga aaatcctagc tagctgttga
                                                                                        161820
gctaattcca taaagtaatc agctcctgag ttctgcagtg gtaataataa tcagcataat gagtaaacac tgtgtgtgcc aggcagcgtc tcatttgatc cttgtgataa tcttgtaagt
                                                                                        161880
                                                                                        161940
actgatttte teeettett aaacaaagtt tttttttttt ttttagagag ggteteaeta
                                                                                        162000
tgttgcccag gctagtcttg aattc
                                                                                        162025
```

```
<210> 14
```

<400> 14

gaatteetat tteaaaagaa acaaatggge caagtatggt ggeteatace tgtaateeca

<211> 162025

<212> DNA

<213> Homo Sapien

<220>

<221> allele

<222> 129600

<223> Nucleotide sequence of chromosome 17 containing the genomic sequence of the allelic variant AKAP10-7

-55 of 185-

gcactttggg	aggccgaggt	gagtgggtca	cttgaggtca	ggagttccag	gccagtctgg	120
ccaacatggt	gaaacactgt	ctctactaaa	aatacaaaaa	ttagccgggc	qtqqtqqcqq	180
gcacctgtaa	teccagetae	tcaggaggct	gaggcaggag	aattqcttqa	acctgggaga	240
tggaggttgc	agtgagccga	gatcgcgcca	ctqctctcca	acctagatag	cagagtgaga	300
		aagaaataaa				360
		ttatggtcac				420
ttaagtttga	aatotatact	tgcactacta	acacagtagt	taatcttagt	cctacaactt	480
		tttcgtaata				540
		agcagtttcc				600
						660
		adaatgattt				
cacaaataca	accetgaaca	tetaggagge	toactatiga	ctggaactaa	actgcaagcc	. 720
agaaagacac	acaccccata	tyttaagaga	Lgtaccaccc	aggeagetaa	agaagggaag	
		gtgaataatt				840
		gtcctctatt				900
		gtcggagtct				960
		tgcctcagct				1020
					tgtagaaacc	
gcataagctt	tccatgtcac	tttcaaagtt	tgatggtctc	tttagtaaac	caaccaagtt	1140
		catttctcag				1200
gaaaagacca	caactataga	ggcgtcattg	aaagctgcac	tcttcagagg	ccaaaaaaaaa	1260
		ggaacattct				1320
ttttcatcaa	agagaaaaga	gaacaaggtg	ttagcaaatt	cctctatcaa	ataacactaa	1380
acatcaagga	acatcaatgg	catgccatgt	ggaagaggaa	gtgctagctc	atgtacaaac ·	1440
		ctgccgaatg				1500
tctcatgttt	gttttgcttt	gttttgttt	gtttttagag	acaggccctt	gctctgtcac	1560
		acgatcagag				1620
					tgcccagcta	1680
		agatgggatc				1740
		tgtggaaaag				. 1800
		catagagtag				1860
		agagttgatg				1920
		gccacacagc				1980
		gtcagatcag				2040
		tgcaagggat				2100
		tcttccatca				2160
		tgattctata				2220
atattacaat	gtaataataa	tagaaataaa	ggcacaatag	accaaacata	gtggctcaca	2280
cctgtaatcc	cagcacttcg	ggaggccaag	acaaacaaat	cacgaggtca	ggagatcgag	2340
accatected	ctasascoot	gaaaccccgt	ctactagaga	ttcaaaaaaa	aattagggg	2400
atataataat	agacacctat	agtcccagct	actccacaca	ctaaaaaaaa	ageedgeegg	2460
		gaggtaagcc				2520
		caaaaaaaaa				2580
		attccaaaac				2640
atattaatta	accagecee	ggtgccaaaa aatgaataaa	aggitgggga	cegetaatet	adataattta	2700
tacccaacc	gazatzgat	gggatgatga	cacctcactc	taggetgat	anaganaga	2760
geecaggee	taaaaataa	ggcatgatca	tageteactg	tageeccaac	cacccaggee	2820
ccagcgaccc	ttttaatta	acttcctgag	tagetyggae	Lacaggeacg	caccaccatg	2880
ctcagctaat		tttatagaga	cgggggtete	accatginge	ccagactggt	2940
ctcaaaccct	gggctcaagt	gatcctccct	caaactcctg	gactcaagtg	atcctccttc	3000
errageeree	caaagtgctg	ggattacaag	catgagecae	tgtacccagc	tggataaaca	3060
ttttaagtcg	cactacagtc	atggacaatc	aggettttea	acatgcagta	tggacagtga	3120
gtcccagggt	ctgcttttcc	atactgaaat	acatgtgata	ctaaggagaa	aggtgctcgc	3180
aaggatattt	aaaatgaaga	atatttaaaa	tgaggaaaaa	actgtttctt	catgactttg	· 3240
ataaggctga	taaagaccat	ttctgtgatc	tcaggtgatt	cactcaagta	gtatatttca	3300
gtaatcatta	tctggaacag	cctgaatctt	aaccaaaata	ccatgatttt	ttaatgctgt	3360
tatgatacct	tgatgatatg	accaaactgc	aatgtaggca	gctaaatctc	cacgagtttg	3420
acttccccga	gagttgacag	ttttcttcac	aaattaaaga	aatatattt	ttgatacatq	3480
attggcatat	ttaaaaacta	cactgaaatg	ctgcaaaatg	atataaagaa	acattttcca	3540
gaatcaaatg	caatcaaaga	gtggattagg	aatctactca	ccattatcaa	ctaaatagaa	3600
acacttggac	tgggtgtggt	ggctcacatc	tgtaatctca	gcactttggg	aggccaaggc .	3660
aggtggattg	cttgaggcca	ggagctcaag	accagcctga	gcaacatagc	aaaactctqt	3720
ctctacaaaa	aaaaaaaaa	attaaccagg	catggtggca	gatgettqta	atcccagcta	3780
		ggactgcttg				3840
_		_				

-56 of 185-

tggtcatgct	gcgccacagc	ctgagtgaca	gagagagacc	ctgtctcaaa	aacaaaaaca	3900
aacaaaaaac	acttaacctt	cctgttttt	gctattatta	ttättattta	tttqttttqa	3960
gatggagtct	cactctgttg	cccaggctgg	agtacaataa	cataatetta	gctcactgca	4020
agctctgcct	cccgggttca	cgccattctc	ctacctcaac	ctcccgagta	gctgggacta	4080
taggcgcccg	ccaccacqcc	cggctacttt	tttgcatttt	tagtagagat	ggggtttcac	4140
cgtqttagcc	aggatggtct	tgatctcctg	acctcgtgat	ccacctgcct	cggcctccca	4200
		tgagccaccg				4260
		agctgaaaga				4320
tcactagaat	ctctacatcc	atatttaatc	tgaatgcata	tccacattca	tcacttacac	4380
caaaaacact	catcatcatt	cctgatgacc	tctaattctq	atttcaactt	tctatttcaa	4440
togaaacaga	ataaggaaag	aaatggaagg	actictages	tttateetaa	actatadata	4500
ctatcaaaga	traccaacaa	taagatetet	cctataaata	taaaacaact	ataattaatt	4560
		tcagaggatt				4620
atactattca	ttccaaacct	tagaaaaagt	atttttaa	ataaaacaca	tanangage	4680
caccaccga	casacatota	taaaatgcct	ctccataatt	gtgaggaggt	atactcaaca	4740
aataattaa	antacttta	catatte	ttaggataatt	tatattaga	acagiccaga	
adicattyda	atattatta	cattttaagc	taaaaaaa	tgccccagga	aacciciatg	4800
acaacctact	ttacctaccy	ggaggtaaac	coccagacte	receagggee	teetgtateg	4860
ttataaaaat	stastagaga	taatcccttg	aagcacaatc	gaaaaageee	tggatetett	4920
		aattcattcg				4980
		gacgccagtc				5040
getgggette	agtgcaggct	tetgegggtt	cccaagccgc	accaggtggc	ctcacaggct	5100
ggatgtcacc	attgcacact	gagctcctgg	caggctgtac	caatttttta	attatttaat	5160
acctatttt	aaaattatgg	tgaatatttt	ggtattetge	tctaaaatag	gcccataaat	5220
		aacccacagc				5280
		ctgaaaagtc				5340
		gatctagcta				5400
		aagaggctca				5460
gggtctgaga	cccacatagc	acttcccaag	gtgcatgctc	cagagaggca	ctgaaacagc	5520
tgagcacaag	cctgcaagcc	tggagaactc	tcacagtcag	aacggagggg	gcccagtggg	5580
		gaacacagag				5640
ttcatggcca	atgaaagcat	cagtgacggg	gccagaaccc	tcatccccaa	agactcttca	5700
ctgcctttag	tgaaaaacaa	tggctagaga	gtgaagttat	gatcatgtat	agagaggtaa	5760
agttacattt	ttatattctg	actctgctaa	tgtgaaattc	cctatctgct	agactaaaag	5820
tttcagacac	cctgttcaaa	tatcccatta	gttgctagag	acttaaaatg	aacagaacgc	5880
acattgtcag	gatgactatt	accaaaaaat	caaaagacag	caagtattgg	tgaggatgta	5940
gagaaactgg	aacttttgtg	cactgtttat	gagaatgtaa	aatggagcag	ctgctgtgga	6000
aaagagtatg	caggttcctc	aaagagtaaa	accaagatgt	ggaaacaact	aaatgcccat	6060
cagtggatga	aggggtagac	aatatgtggt	atatacatac	catggagtac	tattcagect	6120
ctaaaaaaaa	aaaaggaaat	tctataacat	gcaacagcat	ggatgaatct	tgaggacatt	6180
ttgctaatga	aataaggcag	tcatagaaag	acaaatactq	cacgacteca	cttatatgag	6240
ataccaaaaa	tagacaaatt	catagaatca	aagagtacaa	tggaggttac	ctggagctgc	6300
agggcgggaa	acgaggagtt	actaatcaac	gaacataacq	ttgcaqttaa	gtaagatgaa	6360
taagctctca	agatcagctg	tacaacactg	tacctagagt	caacaataat	gtattgtaca	6420
		agattaacaa				6480
ttcttaccac	agtaaaataa	aaaaagaata	tcaaqcccaq	gagttcgaga	ctaqcctqqq	6540
taacatggtg	aaaccctgtc	tctacagaaa	atacaaaaat	tagccagctg	tagaagtaca	6600
ctcctaggga	gactgaggta	ggaggcttgc	ttgagcccag	gaggtcaagg	ctgcagtgag	6660
ccatgattgc	accactgtac	tccagcccag	atgacagage	aagacaccac	ccccccaaa	6720
		cattttaaaa				6780
qaqatqaaca	gagcatcgac	cctcatctag	taggattett	ggtctaactg	aaaaacagac	6840
attgagagag	aaacaatgac	agtgatgtga	tcacagcaat	tacacaggta	tecetagaa	6900
actgcagaag	aaaggaggaa	tgcctaactt	tcagaaaata	gagaaagggt	caaacagttg	6960
atassact	tccaaaacta	gagagaactg	cacacaccaa	atcacacaca	daadaaaaad	7020
catagagagat	tetaggacee	accggctatt	tttgatgggt	descaragada	ctacaaaaa	7080
ascaggagac	dasadasta	gtgggatgaa	acctcaaaca	actttaccta	cattacttaa	7140
gatgactgcc	cttcatteec	tctagtcaat	accecaaca	castcasacc	actigottad	7200
tcasattasa	attttagast	cattt+++	ggggacaact	caaccaaaya	ayaaayatyC	
deadattace	acccayaat	gattttttat	gycaytatgg	ggaatagatt	adaayagagt	7260
Sactordad	graayaaact	tgttaagagg	caacigaaac	aguctagatg	acaacaaca	7320
taacigacaga	ycgactagaa	aaatcagaac	aygctgaatc	aacagatacc	tagatgaaaa	7380
taggact	natagemen	ttgtatcttg	yagaggaagg	agetgettee	tractrace	7440
tacgactggg	aacacggaag	gtttgccgtg	cgtattggtt	acatactggt	grgragecaa	7500
accepacaa	ccatttagca	gcttaaaaca	caaaggctta	ccccagtt	rergragace	7560
ayyaatctaa	yataggctta	gctggctggt	cetggeteag	agttteteaa	gaggttgcaa	7620

-57 of 185-

						•
tcaagatgto	agctggggtt	gcatcatctg	aaggctcaac	: tggggccgga	gggtccactt	7680
ccaaggagtt	: cactcacctg	, cctgacaago	r caqtqctqqt	: tattaacaaa	agateteaat	7740
tcattgccaa	ı gtgagcctct	: ctatagcatt	gctggaacat	cctccccatc	tggcagttgg	7800
cttctctcag	, catgagtgat	: ctgagagaga	gagcaaggag	gaagccacag	tgttcttcct	7860
actcctactc	: ctaacactat	ggacctacto	ctaacactct	cacttetgee	ttattccatt	7920
agttagaaag	ggaactaagc	tecacetett	gaaataagaa	gtgtcaaaga	atttgtggat	7980
atatttaaaa	ı atcatcacac	: tgtggaagtg	gatagggggt	tcaattaatg	ctgaacttga	
aatgcctgag	, acattcaaat	gtccaacagg	caatgaacat	acccatagat	ggtcatgact	8100
ttagcaagaa	tagaggaaga	. tcacagaatt	aaggaggaat	tgaaaggtaa	aagaagtgga	8160
greagarre	the	tgagccatga	aaggaacttt	aactattgag	ttagaggtca	8220
gagtaggaaa	. ccccggcgga	attoutute	aaagaaagga	accatataag	catgttttga	8280
ggtagaggga	gaataaatta	. gragacaggg	agaggtaaaa	aacataaatg	ataggggata	8340
tettette	greeriggeag	aattttttat	ccallgactt	ggggccaaga	gagggacact	8400
tctaggggaa	agggataagg	aaaacaayaa	agaacgggcg	ctatttagtg aatatagatg	tageteetgee	8460
ttgagattct	cacctcaagt	ccattttatt	gtgtgttagg	ccttcctacc	tgacctcaca	8520
actacataca	gactgctgt	ttatattat	greatettee	aggtttcagc	attataaaat	8580 8640
atctoctace	ctottcccaa	acctctctag	agtccatcct	ccttccttgg	attettggcat	8700
attgggccac	gtatctaaga	actostocct	tcagttaggc	ctgagaacct	acagegeeeg	8760
aatctccatc	agtgaccctg	acagacttgg	tatetteeae	atgtcactgc	teccageeta	8820
tggtctagga	gaateteage	ctagacctct	agtagtatgg	ataaggcgtt	aarratatett	. 8880
tgaaccagag	tctqtcatat	tcctcaatgt	gggacagata	aaacagtggt	aggeteete	8940
tttctgagct	agaactctgg	tttttggtct	agattette	atgtatgacc	tttcagaggt	9000
attaaaattt	gttctaatac	aatgttcaat	acaaatgtag	ttccttttct	gttaggacct	9060
caacaaaaca	tgaccaactg	tagatgaaca	ttaaactatq	acaattcatg	gaaatgaata	9120
cagtaatacc	tgcggttccc	ccattttagc	agtcactatg	gtgacatttg	gcacaaatgg	9180
ctatttaagg	gtgcttttgt	taaaacctac	catcttacta	ggcacatgat	attgaaacta	9240
atgaaataat	ggagaaactt	cttaaaaact	tttaatgaat	aaaqtqatqa	aqtqataata	9300
ttttagctgc	tatttataaa	gtgactatta	caggtcaaac	attettetag	ggttttttg	9360
ttgaagttgt	cacatttaat	ccttaataac	ccactatgag	tcaqqtattc	tteteteece	9420
tttggacagt	tggggaaatg	ggggtcagag	aggttaggta	atttqctcaq	ggccacacaa	9480
cctgcatgta	gaaaatctga	gatttgtaca	ggaacgtatc	aaactctgaa	gtccatgctt	9540
ctattttccc	atgctgcctt	tctaataaaa	ggtaactaat	gctactggat	gctgccccca	9600
aagtgagtca	ctttcacccc	accetacttg	attttctcca	taaaactaat	cacatcctga	9660
caacttattt	attgctgatc	tcccccacta	gattataaac	tcaataaaag	caagatcctt	9720
gtctgctgaa	tatcagtace	taaaacgctg	tctagcacag	agcaagtaat	taatatttgt	9780
cgaacgaaca	aataaaggaa	aaaaattcaa	aggaagaaaa	agccctaaaa	cagatgttta	9840
tttttaaacata	cattttaaaa	tactacatac	aacaaattca	ggacagaatt	taaatttgat	9900
ctctcaaaga	cccaccaag	cacatcactt	gcacagtggc	tcacacctgt	aateetagea	9960
acatootosa	acctatctat	actasasata	gaggicaaga	gttcaagacc ccaggcatgg	ageerggeea	10020
ctgtaacccc	acctactcac	gaggetgagt	Cagaaactat	gcttgaacce	rggeaggree	10080
aattacaata	agccaccag	gcaccactcc	aggagaatt	gagtaacaaa	aggaggcaga	10140
gtctgaagga	gaaggaaaga	aagaaggaaa	daaddaaada	aggaaagaag	gcaagacccc	10200 10260
aagaaagaaa	gaaagaaaga	aagaaagaaa	gaaggaaaga	aagaaagaaa	gaaagaagga	10320
aagaaagaaa	aagaaagaaa	gaaagaaaga	accaagtgct	tatttgggac	ctactatact	10320
atottttcc	atgcacgcta	ttttcagtaa	agcagttagc	aaacttgcaa	gatcataaca	10440
acaaatatat	gcttctataa	ctctaaaatt	gtgctttaag	aagttcctct	ttaccacctc	10500
atgtatgcat	tagttttcta	agagttacta	gtaacttttt	ccctggagaa	tatccacage	10560
cagtttattt	aaccaaagga	ggatgcttac	taacatgaag	ttatcaaatg	tgagcctaag	10620
ttgggccagt	tcatgttaat	atactccaga	acaaaaacca	tcctactqtc	ctctgacaat	10680
tttacctgaa	aattcatttt	ccacattacc	aaqqaqccaq	ggtaggagaa	tatagaaaga	10740
ccacccaaga	atccttactt	ctttcagcaa	aatcaattca	aaqtaqqtaa	ctaaacacat	10800
gccctaacaa	tgaatagcag	attgtgctca	gaagaatqat	ctacaacatc	ttactqtqaa	10860
ggaactactg	aaatattcca	ataagacttc	tctccaaaat	gattttattg	aatttqcatt	10920
ttaaaaaata	ttttaagcct	aaattttaaa	aggtttgata	ttggtacatg	aatagacaaa	10980
cagacatgga	ctagaccaag	aattaggttc	aaacatatac	aggaatttaa	tatacgataa	11040
atctagtatt	ccaaaggaac	caacaaatgg	tqttcaqaca	acaggatagg	catcaggaaa	11100
aacacagttg	ggcaccctac	cttactccta	acaccaggag	taactgaagg	agcaccaaat	11160
acctatttat	tttaattata	gttttaagtt	ctagggtacg	tgtgcacaac	atgcaggttt	11220
attacatagg	tatacatgtg	ccatgttggt	gaggagcacc	aaatatttaa	aagaaaaaa	11280
catggccaggg	geggtggete	acacctgtaa	tcccagcact	ttgggaggcc	aaggtgggca	11340
gaccacctga	ggccgggagt	regagaccag	cctgagcaac	atggagaaac	cccatctcta	11400

-58 of 185-

ctaaaaatac	aaaattagcc	aggcatggtg	gcacatgcct	gtaatcccag	ctacttggga	11460
gactaagaca	ggagaatagc	tttaatctgg	gaggcacagg	ttacaatasa	ctgagatatt	11520
						11580
gcactccagc	ctgggcaaca	agagcaaaac	treadcread	aaaaattaat	adaladalad	
aaataaagaa	agaaaagaaa	aaaatgaaaa	cagcacaacc	agcagaagaa	aacaccgtag	11640
aatcctcgga	ctcttaggat	ggggaatgcc	tataatataa	aaaccctgaa	gttataaaag	11700
agaaaatcac	ctacatacaa	accaaatctt	tctacatgcc	taaaacatag	cacaaacaca	11760
	catagctgaa					11820
ttaattttcc	tacacataaa	gagtacctat	ataaacccaa	Casasasacc	accactaacc	11880
coaacttccc	atgtgacagg		ataattaaa	cadadadacc	accactatta	11940
caaaacaaaa	atgtgatagg	taacgaacag	gragitiaca	gagaacacaa	acggccccc	
ggcacataag	atgctcagac	egactettae	CEACCEACCE	tttgagagac	agggteteae	12000
	aggttaggct					12060
	gcacctggct					12120
ttcaaatcta	ttttacctat	tagaatggca	aaaatttgaa	aaacttcaaa	catcatcatg	12180
	tgtgaggaga					12240
	ggaaagcaat					12300
	ttccactcta					12360
						12420
	agggacaggg					
	tatatactgt					12480
	tttttttt					12540
atgccatggt	atgatctcag	ctgactgcag	cctcgacctc	ctgggttcaa	gcaatcctcc	12600
cacctcagcc	tcctgagtag	ctgggactac	aggcacgtgc	catcatgcta	atttttgtat	12660
	tcactatgtt					12720
	ctccaaagtg					12780
	aagaaaaaat					12840
						12900
	ataatgaaag					
	caggaatttg					12960
	gggcgcagtg					13020
	gaggtcagga					13080
tactaaaaat	acaaaaaatt	agccgggcgt	ggtggcaggt	gcctgtagtc	ccagctactt	13140
gggaagctga	ggcaggagaa	tggcgtgaac	ccaggaagcg	gagcttgcag	tgagccgaga	13200
tcacqccact	gcactccagc	ctgggtgaca	gagcaagact	ctgtctcaaa	aaaaaaaaa	13260
	tctctagatc					13320
	atateettee					13380
	ccaatggaga					13440
						13500
	gtgaagtgga					
	taggaaatcc					13560
	tcaggagatc					13620
	aaaattagcc					13680
gactgaggca	ggagaatggc	atgaacctgg	gagacggagc	ttgcagtgag	ccgagatcac	13740
	tccagcctgg					13800
	aagatccaac					13860
	agaaaattta					13920
	ttgaaagggt					13980
	ctagcaaggc					14040
	aaaggcagac					14100
	cctactgagc					14160
	cgcattattt					14220
catttacaac	atgaaagaac	acaagcattc	tcatactcaa	gaatccttaa	gaaaaatgta	14280
gtcctaatcc	agcccactga	aagttaaatg	tacttaatgt	gctcattaat	gggaacttca	14340
tagcttcaaa	tcagtctggt	cccatctacc	aacatctctc	gcccggcttt	cctqcaataq	14400
	tccctcctcc					14460
	acacccaagt					14520
	ccacqtgccc					14580
	tcactgcccc					14640
	tccacctgca					14700
	tcaatggggc					14760
	acctcactca					14820
	attctaagac					14880
taaactccag	aggggcaggg	atttctgtct	atttattcat	ttctttatcc	ctaggacata	14940
	tagttcagag					15000
	gcacagaatt					15060
	attagatata					15120
ataatattaa	tttgataata	ataacaaaaa	ctctcccac	cactotoco	anntatas	15120
ualatidd	ccigacaala	ucaucaaada	uccegulagg	Caciging	caaacctgca	TOTOU

-59 of 185-

atcccagcta	ctcaggaggc	tgaggtggaa	ggatcacttg	agaccagagt	tcaagactca	15240
				aaacttaaat		15300
gaattctcaa	agcgtcacaa	aaactggaga	. ttaaggtaca	ggaagtgtga	agtaatatta	1 5360
ctatgctaat	ggttttttt	ttttttagaa	aggtataacc	aaaagatttc	tttctcaaqt	15420
cgataaactg	agaaagataa	gcatatcttc	caattaacag	agggggagga	aaagccagat	15480
acaacaaaat	aagatataaa	ttagtttcca	gttgaaaaca	agagtaggag	ttattttgca	15540
tcacctcacc	tataacctcc	cccaqcccaa	aaaacactac	tgataaacag	ggtagaaaag	15600
				aaccacaaac		15660
cacctggcca	accetoceaa	atctagactc	agtaggagga	acgtgctgag	agctaggatg	15720
taccaactta	gacattctgt	gggatacaga	tatacataga	agggtcacac	catctcaaag	15780
gcacctgtaa	tacccactaa	ttacagccac	catatotoao	agagaaactc	agggcactta	15840
gagagtataa	caagaacctt	atotcatcto	agatgaggaa	tcctcagccc	tocaaattaa	15900
ccaactcttt	agaacaactg	gcaaaacata	aatatccaca	acttttgttt	cactaattcc	15960
actcttagat	atcaatccaa	agtacatgag	acagcagata	cacacacaaa	atggtattta	16020
ctgcagcatt	gtttataata	gcaaaaaaca	agaaataatc	catatgtctc	aataggatac	16080
tagatacata	agggtatgta	cccatcattc	aaccatcaaa	aagagtgata	tagatataca	16140
cagatggaca	taaaaagctg	tatattacat	gaaaacaaac	tcaagcagca	gcaggatggg	16200
cttatgatag	tcagtatgag	ctaatttctg	gaaaaaaaaa	tctagtgtgt	acacadaaaa	16260
catctgaaag	aacagaaaca	aaactatcag	cagaatattg	agatgtttta	ctaacttota	16320
tatctatact	acttataatt	tttaccccaa	acaacaatta	ctttttggaa	aaaraaaatt	16380
caccaaataa	agcatttctt	taaacttcat	otttaaacaa	atggtgatgg	aataaaaacc	16440
ttcttattca	trataaacac	acacaccaca	catacacaca	tgtgcgtgag	cacacacatt	16500
acttoatasa	taccatotto	aatattttag	tettteett	taggttctat	cacacccccc	16560
				tgcctaaacc		16620
				actcagcctg		16680
ttcatttcca	accettatta	aaatoccaca	tagaggtggt	tcaaataaaa	adactaccct	16740
ggacctgga	ctaggettee	tttattacta	ctcataatcc	ccaagttctg	toottataat	16800
				atatgttttt		16860
cttaattcaa	aacaccatca	cactettte	cadaggeeee	taaggaaaag	aaattgagga	16920
actgactgac	ttaaaggtca	taaaactata	tagacgaaaa	gtcagcaaaa	aaactgagta	16980
acetataca	agtagagget	gaaaaccact	accattcacc	tccagggtga	gaagaaacac	17040
gattacaaag	tcaccttctc	tasatottos	accaccacc	catacccata	getacacaca	17100
				tttagcatgc		17160
				actgaataat		17220
				tggagaagat		17280
				tgatgcacag		17340
				ctctgttcca		17400
				gctcccaaga		17460
datadaddad	acacacacac	accepadadga	atcacatasa	gctctacctc	aagttagtta	17520
				actacgagta		17580
				gaaatttatt		17640
				aaatagctga		17700
				ttgcccagaa		17760
tacccaegaa	ttaacacact	catottaaat	ggaggtaag	gtgaaccaga	accaaggaac	17820
				aatgaattat		17880
ttaaaataca	tattootact	aaaaagaaaa	cassacrate	tggctttgga	taaacatgaa	17940
cttcatccaa	gaataccag	taataaatat	aaaaaagaata	agagaattag	aaaagttato	18000
attttataaa	ccttaatata	ttcacctaca	catoctasas	ccactgagta	aaaaaccacc	18060
tagasagaa	atoctcacat	gatgtgaga	tttcacacca	cagataattt	attagataga	18120
						18180
ggaaggaaga	tatagaaaat	agagagata	geggagagag	ggccccacaa cttctcgcca	caccacycyc	18240
22ggt 22tga	cgcgggagcc	acacagcacc	ttatasaast	gagacgetee	aaactgtttg	18300
thattaaca	tataaaaaa	acceggacage	ccctgaccat	agaaaactca	accagacaac	18360
				tgtggacttg		18420
tagaycaya	20222575	assaute et a	gaaggaagug	gtaataaaaa	ccccaacac	18480
cayatataaa	ccacacacac	adda at at t	gaayyyyaag	aggaggcaga	ccacccaggt	18540
atatasasat	togagatasa	accoagigat	aggiciacity	ggtcttcttt	trgetteatt	18600 18660
				accaaggggc		18720
				ggaaggagac		
gatygaacac	attatasaaa	catagooca	taggga	ataactgagc ccccaccaag	ayggagccta	18780
gacticcagt	tttatccct~	catoggages	gtaaggagag	coccaccaag	getgagtaag	18840 18900
tatasasasas	acctoccctg	catggcagta	graaggagee	cateceteae	cegecageag	
cyccagggga	acceygactt	CCaCLCCCAC	ccaggagtga	tgaggccctc	cctgctgggg	18960

-60 of 185-

tcatgtcaga	ggaggcctag	tggagattca	gtgacttaac	cttttcccag	agataatgag	19020
gccacctttc	ctccctcttc	ccccatggtg	acagtgaaag	cactgtggca	agcagtaggc	19080
actcctaccc	ctcctagcca	gggaggtatc	agggaggcca	agtagggaac	cagaataccc	19140
			accccattgg			19200
			gtaacaagct			19260
			gtctagagtc			19320
cottoaaott	ttcattgagg	atcatttata	ccaagagtca	ggaagatccc	aaactgaaag	19380
agagaaaaga	caattgacag	acactagcac	taagagagca	cagatattag	aactacctga	19440
			aacaggctgg			19500
			tggatcacaa			19560
cctaactaac	acceteaaac	cccatctcta	ctaaaaatac	22222222	accaaccat	19620
			gggagcctga			19680
			accaccgcac			19740
			aaaaaaaagc			19800
			_			19860
			gcaaagaaat gcactttggg			19920
						19920
			ccaacatgga			
			tgcctgtaat			20040
			ggaggttgcg			20100
			agcaaaactc			20160
			atacagtaac			20220
			agtgaacttc			20280
_	-		ctggccaaaa			20340
			aggaaggaag			20400
ggagtgaggg	agaaagtctc	aaagacctct	gagactaaaa	taaaagatct	aacacttgtc	20460
atcagggtcc	aggaaagaga	caaagatggc	acagctggaa	acgtattcaa	aaaataatag	20520
ctgaaaactt	cccaaatttg	gcaagagaca	taaacctata	gattcgaaat	gctgaacccc	20580
			aatacatcat			20640
gaaaagagaa	aacgtcttga	aagcagtgag	tgaaacaaca	cttcatgtat	aagggaaaaa	20700
			taaggaagcc.			20760
ttttcaagtg	ctgaaagaaa	agaagtgtca	acacaaaatt	ctagattcag	taaaaatatc	20820
cttcaagaat	caatgggaaa	tcaagacagt	ctcagataaa	gcaaaataag	agaatatgtt	20880
gccagcagat	ctcccctaaa	ggaatggcaa	aaggaagatc	atgcaacaga	ccaaaaaatg	20940
atgaaagaag	gaatccagaa	acatcaagaa	gaaagaaata	acatagtaag	caaaaataca	21000
tgtaattaca	ataaaatttc	tatctcctct	taagacttct	aaattatatt	gatggttgaa	21060
gcaaaaatta	taaccctgtc	tgaagtgctt	ctactaaatg	tatgcagaga	attataaatg	21120
gggaaagtat	aggtttctat	acctcattga	agtggtaaaa	tgacaacact	gtgaaaagtt	21180
			atatatgtgt			21240
			ctaacaacac			21300
			tctaaaaaat			21360
			acaaactaaa			21420
			aattacataa			21480
			tttaaaaaca			21540
			tcccagcact			21600
			cctggacaac			21660
			gtggcacacg			21720
			cgggcagcag			21780
			gactccacct			21840
aacctgcttt	aaatatacca	acatatotto	gttgaaatta	aaagaataaa	atatatcato	21900
			tattaataac			21960
			atcaagaaaa			22020
			accetetett			22080
			acttaacacc			22140
			agcaaaataa			22200
			cataaaacaa			22260
			ggggagggag			22320
taggettggat	ttttat-	agagetgeat	999999999	aayytyacag	tattaccas	
			tccaaaattg			22380
atotocatta	tatataaaaadg	ttttt	tgtacgtttt	aagtgggtga	aacacacyyc	22440
acycyyacta	tataataa-	tannataa	cttaacacat	tecaaagaat	agaagtcata	22500
cagagugugu	these	LCaaactaga	aagaggtaac	rggaggaraa	cyagaaaagc	22560
			ttctaaaatc			22620
cattletgat	acceatttt	actgtttaat	gtatttttaa	aaatttctta	agggaaataa	22680
actgactaaa	aatgaatatg	gctgggtgcg	gtggctcacg	cctgtgatcc	cagcactttg	22740

-61 of 185-

ggaggccgag	gctggtggat	cacaagatca	ggagttcgag	accagectgg	ccaagatggt	22800
			aagtagccaa			22860
			agaatcgctt			22920
			cagcctgggc			22980
					gctgagaggg	
						23100
adallalad	cactaaatgt	LLacaltaga	aaagagaaaa	agettedaat	caacagcccc	
cactcccatc	tcaagaacac	agaagatgaa	gagcaaaata	aacccaaagc	aagcaaaaga	23160
			gaaaacagaa			23220
gaaacaaagt	actgattctt	cgaaagatta	ataaaattga	caaacctcta	gcaaggctaa	23280
caaacaaaaa	agaaagaaga	cacggattac	cagttattag	aatgaaagca	taattagaaa	23340
caactctaca	cattataaat	ttgacaatgt	agatgaaatg	gactaattac	tgaaaaaaca	23400
			agataattgg			23460
			aaaacagaaa			23520
			ttaacaaata			23580
acctasacac	atotatotac	totoaaaaat	atcttcagaa	aaatagaagt	ttatttasa	23640
			caagaagcaa			23700
			aagaattacc			23760
			ccagttcatt			23820
			cttgacacac			23880
			gaagcactgg			23940
			ctgtaatctc			24000
ctggtggatc	acctgaggtc	aggagtttga	gactagcctg	gccaacatgg	taaaaccctg	24060
			agggtggtgg			24120
aaacaaaaat	aaactgcaga	ccaatatcct	tcatgagtat	agacacaaaa	ctccttaaac	24180
tccttaacaa	aatattagca	agtagaagca	atatataaaa	ataattatac	accatgatca	24240
			gttcaacatt			24300
					aaaaaagcat	
			tctaataaga			24420
						24480
			ctacaaaagc			
			atcaggaaca			24540
			ctaacttgtg			24600
			ataaaactgt			24660
			gggtaggggg			24720
			aagttcaaga			24780
aactatactt	aatatattgt	attcttgaaa	atactaaaag	agtgggtgtt	aagcgttctc	24840
accacaaaaa	tgataactat	gtgaagtaat	gcatacgtta	attagcacaa	cgtatattac	24900
tccaaaacat	catgttgtac	atgataaata	cacacaattt	tatctgtcag	tttaaaaaca	24960
catgattttg	gccaggcaca	gtggctcata	cctgtaatcc	cagcatttta	ggaggctgag	25020
gcgagcagaa	aacttgaggt	cgggagtttg	agaccagaat	ggtcaacata	gtgaaatccc	25080
gtctccacta	ataatacaaa	aattagcagg	atgtggtggc	gtgcacctgt	agacccagct	25140
			gaacaaggga			25200
			agtgagactc			25260
			ccaagcgcag			25320
accactttgg	gaggggagg	caggcagatc	acaaggtcag	gagtttgaga	ccagcctgac	25380
caacatooto	aaaccccatc	tctactaaaa	aatatataaa	ttagccaggc	atgtgtagtc	25440
			tcacttgaac			25500
			agaacgagac			25560
casastasco	taattttaaa	226264222	ctactaagtg	aattgagtaa	atatttaaa	25620
	atgatgaaca	Lacadaacc	aattgagctg	gacaaaggag	gattyttta	25680
			gattgtgcct			25740
			tatttaaaaa			25800
gtactagcaa	taagcacatg	ggtactaaaa	ttaaaaacat	aataaatact	gtttttaatt	25860
gcctgaaaaa	aatgaaatac	ttacatataa	atctaacaaa	atgtgcagga	cttgtgtgct	25920
gaaaactaca	aaacgctgat	aaaagaaatc	aaagaagact	taaatagcgt	gaaatatacc	25980
atgcttatag	gttggaaaac	ttaatatagt	aaagatgcca	attttatcca	aattattaca	26040
			gaaaaatttt			26100
atacaaaaat	gtatacggaa	atatgcaaag	gaactagagt	agctaaaaca	aatttgaaaa	26160
			ccagtttcaa			26220
tcaagactot	gatattgaca	gagggagag	tatagatcaa	tacaaccaaa	tagagaacta	26280
adaaadaadc	acacacaaat	atocccasat	gatttctgac	aaanntntta	aaacacttca	26340
			tgtagagtca			26400
acatraacct	deacgreece	ccctacadada	aaattaactc	aanataaata	araggeaaaa	26460
catagorates	acatottcaca	aacatttaca	222200000	addated	tanaactaat	
cacaayatat	acatetataa	aacacccaga	aaaaggccac	gcacggtggc	ccacgecege	26520

-62 of 185-

aatcccagca	ctttgggagg	ccaaggcagg	tggatcacct	aaqqtcaqqa	gtttgagacc	26580
agccggatca	acatggagaa	gccccatctc	tactaaaaat	acaaaattag	ctggacgtgg	26640
tagcacatac	ctotaatccc	agctacttgg	gaggctgagg	catgagaatc	gcttgaaccc	26700
			acaccattgc			26760
			aaaggaaaaa			~26820
			ccaaactaag			26880
taataataa	atataattaa	acacetgaeg	tenant	acctacaagg	teagreging	26940
			tcaactagat			
ctgtattatt	ctttcaactt	ttctgtaggt	ttgacatttt	tttagtaaaa	aattggggga	27000
aagacctgac	gcagtggctc	acacctgtaa	tcccagcact	ttgggaggcc	ggggcaggtg	27060
gatcacacgg	tcaggagttc	gagaccagcc	tggccaacat	ggtgaaaccc	cgtctctacc	27120
aaaaatataa	aaaattagcc	gggtgtcatg	gtgcatgcct	gtaatcccag	ctactgagga	27180
ggctgaggca	ggagaatcac	ttgaacctgg	gaggtggaag	ttgcagtgag	ccgagattgt	27240
gccactgcac	tccagccttg	ggtgacagag	cgagactccg	tctcaaaaga	aaaaaaaaa	27300
aaagaatatc	aaacgcttac	tttagaaact	atttaaagga	gccagaattt	aattqtatta	27360
			attgttaaat			27420
			actgtttagg			27480
			ccaaagctgt			27540
			gtttggatat			27600
			ggaggtgggg			27660
			gtttggtgcc			27720
			ttattaaaaa			27780
			cactggttcc			27840
						27900
			agatagtgat			
			tctttataaa			27960
			ggggaaatca			28020
			tccagaagtg			28080
			tccaaccaaa			28140
			actttgggat			28200
			aatatggcaa			28260
			gcctgtaatc			28320
ggcagggaat	cacttgaacc	caggaggcag	aggttgcagt	gagccgagat	cacgccactg	28380
aactccagcc	tgggcaacaa	agtgagactc	cacctcaaaa	aaaaaaaaa	tatacatata	28440
tatatgtgtg	tgtgtgtgtg	tgcgcgcgtg	tgtgtatata	cacatacaca	tatatacata	28500
tatacagaca	cacatatata	tatgaagcat	gaaaagaaac	aaggaagtat	gaaccatact	28560
			gggggaagta			28620
agagcaaaca	gttatcagat	ttaacagaaa	aagactttgg	agtaaccatt	ataaatatgt	28680
			aaggaaagga			28740
			aaattataaa			28800
			aaaattcact			28860
			acaaatatac			28920
			aaataaacag			28980
caccattaat	cacattaaca	tatgcatact	gagagtaccg	daeccedeta	adaaadadda	29040
adeceses	ttcaaatcat	acceptaec	ttcctagatt	tttattttaa	agaaagaaga	29100
totagaatga	aganager	taaattaaa	gtaggataaa	toegecetaa	agcaacaacc	29160
						29220
			aaaacagaga			29280
			aagaacatca			
acagaaacag	Legacetete	attagaaata	atgaatgata	acatatttga	agtgeteaaa	29340
			aagctgtctt			29400
			tgtacatcca			29460
acaatagcca	aaaggtagaa	gcaacccaag	ggtccatcga	caaataaata	aaatgtggta	29520
tatgtataca	caatggaatt	tattcagtat	taaaaaggaa	tgaaattctg	acacatgcta'	29580
			taagtgaaat			29640
aataccatat	tacttcactt	gtatgaaata	cctagggtag	tcaaattcag	agatagaaag	29700
taaaacagtg	gttgccaagg	gctgagggag	ggagtaacgt	ggagttattg	ttgaatgggt	29760
acagaatttc	agttttgcaa	gataaaaaga	gttctggaga	cagatggtgg	tgagggtggt	29820
acaacaatac	aaatatactt	tatactactg	aacagtatac	ttaaaaatga	ttaacatggt	29880
gaaaccccgt	ctctactaaa	aatacaaaaa	aattagctgg	gtgtggtggc	gggcacctgt	29940
aatcccaqct	acttqqqaqq	ctgaggcagc	agaattgctt	qaaaccaqaa	ggcggagqtt	30000
gcagtgagct	gagattgcgc	caccgcactc	tagcctgggc	aataagagga	aaactccotc	30060
tcaaaaaata	aaaaataaaa	aaaatttaaa	aatgattaag	caddaddcca	gacacaataa	30120
ctcacaccta	taatgccagc	actttaggaa	gccgaggcag	acastcsctt	gagaccagga	30180
gtttgagagg	agectageca	acatggcaaa	accetgtete	toctasasast	acaaaaatta	30240
gccaggcatg	gtggcatata	cttataatcc	cagctactgg	tgagactgag	acacgagaat	30300
2 3 9				-345466949		22200

-63 of 185-

tgcttgaacc	caggaggcag	agattgcagt	gagtcgagat	cgcqccactg	aattccaqcc	30360
tgggcgacag	agcaagattc	tgtctcgaaa	aaacaaaaac	aaaaacaaaa	agcaaaacca	30420
			gctgaggagg			30480
ggctcatgag	agcacaaaac	ttttcaaaaa	atgtttaatg	attaaaatgg	taaattttat	30540
atgtatctta	ccacaaaaaa	aagggctggg	gggcaggaaa	tgaaggtgaa	ataaagacat	30600
cccagagaaa	caaaagtaga	gaatttgttg	ccttagaaga	aacaccacag	gaagttette	30660
aggetgaaaa	caagtgaccc	cadadddtaa	tctgaattct	cacacacas	tasacetac	30720
			aacaatgcat			30780
aaatrattta	aaaaacaatt	ccatgacact	ttatatataa	accetattat	tanagetata	30780
acatatatac	aaatatactt	gtatatatata	tgcaaataac	tgcagaaaa	agaacctata	30900
			acagatagta			
taaagetgee	attttaa	agaaaccacc	aataattaca	aagtaatata	acagggaact	30960
caaaaacaaa	togogatoot	acciaaaaac	aataattata	acaacacac	ggregggere	31020
gradiacida	antitteat	totanatac	cacaaaaagg	gaagaagaca	atagaactac	31080
			attaaattat			31140
			tactaaaaag			31200
aaaaaataaa	taaaataatt	aaaacgtttg	tattagtttc	ctcagggtac	agtaacaaac	31260
taccacaaat	tgagtggctt	aacacaactt	aaatgtattt	teteceagtt	ctggaggcta	31320
			atgctccctg			31380
cctcccttgt	ctcttccagc	ttccagtggt	tctcagtaac	cctaagtgct	ccttggcttg	31440
tagctatatc	attcctagca	accagaaaga	agaaaataat	aaagattatg	gcaaaaaata	31500
atgaaatcaa	aaggagaaaa	atggaaaaaa	ataaataaaa	ccaaaagcta	gttctttgaa	31560
aagatcaacc	aagttaacaa	accttttaac	tagactgaca	aaaaggaggt	aagactcaaa	31620
			ttactaatga			31680
cgaacaaatg	tgtgccaaca	aattagaaaa	cttagatgaa	atggacaggt	tcctaggaca	31740
acatcaacta	ccaaaattta	ctcaagaaga	aagagacaat	ttgaatgagc	tataacaagg	31800
gaagagactg	aattgacaac	caagaaacta	tccacaaaga	aaatcccagg	cccagaagat	31860
ttcactgtga	aattctttca	aacttataaa	tataaattaa	catcagttct	tcacaaactc	31920
ctccaaaaaa	aagaacagat	ctctatttac	aggcgatacg	atctttagaa	aatcctaagg	31980
gaactactaa	gacactatga	taactgataa	acaagttcag	caaggetgea	ggatagaaaa	32040
ccaatataca	aaaatctatt	atatttctat	acacttgcag	tgaacaaccc	aaaaatgaga	32100
ttaagaaaat	aattcaattt	acaataacat	caaaaagaat	aaaaacactc	aaaaataaat	32160
ttattcaaqt	aaqtqcaaaa	cttatactct	agaagctaca	aaacactgtt	aaaagaaatt	32220
aaaggtttac	ataaatgaaa	aactatccca	tgttcatgga	tcaaaagact	tattactocc	32280
aatgetetee	aaattgatct	ataaattcaa	caaaatcctt	atcaaaatcc	cagatgaggc	32340
			gcactttggg			32400
			ccaacatgga			32460
			tgcctataat			32520
aggcaggaga	atcocttoaa	cccaggaggc	agaggttgca	gtgagccaag	atcotoccat	32580
tgcactccag	cctgggcaac	aagaggaaaa	ttccatctca	222222222	aaaaaaaatc	32640
			attattctaa			32700
			aacacgaaca			32760
accaattaca	aatottacoa	cacagcaaca	gtaatcaaga	ctatataata	ctaccaccc	32820
			taattgagag			32880
totatootaa	atacatatat	attttttt	tttttttt	attttta	agectaaaca	32940
ctcacggtaa	tagagagagat	gatattana	ttctgggctc	cccccccgca	gagacagaac	
cctaccatge	tactagget	agtercates	ccccgggccc	aagcaacccc	techtitas	33000
cccccaaag	tgctgggata	ttttasses	gccaccacat	ccageecaga	Lgattttcaa	33060
aaaagtcaac	aagaccatte	ccccaacaa	ataggtctgg	gatgatcaga	tagteacatg	33120
aaaaaaaaa	tgaagttgga	ecctccatca	cactaaagtg	ctgcgattat	aggcatcage	33180
caccacaccc	ageceaaatg	attttcaaaa	aggtcaacaa	gaccattctt	ttcaacaaat	33240
aggtctggga	taatcagata	gtcacatgaa	aaaaaaatg	aagttggacc	ctccatcaca	33300
ccatatgcaa	aaattaattc	aaaaatgaat	tgatgactta	aacgtaagag	ttacgactgt	33360
			tcttaaagac			33420
cttagacatg	acaccaaaag	catgaccaac	taaggtaaaa	tagggtaaat	tgtacctacc	33480
aaaatgaaaa	acctttgtgc	tggaaaggac	accatcaaga	aatggaaagc	caaaatagcc	33540
aaggcaatat	taagcaaaaa	gaacaaagct	ggaggcatca	tactacctga	cttcaaagca	33600
acagtaacca	aaacagcatg	gtactagtag	aaaaacagac	acatagacca	atggaacaga	33660
ataaagaacc	caaaaataaa	tccacatatt	tatagtcaac	tgatttttqa	caatgacacc	33720
ccttcaataa	atgatactag	gaaaactgga	tatcgatatg	cagaagaata	aaactagacc	33780
cctatctctc	accatataga	aaaatcaact	cagactgaat	taaagacttg	aatgtaagac	33840
ccaaaactat	aaaactactg	gtagaaaaca	taaggaaaaa	cqcttcaqqa	cattggtcca	33900
ggcaaagatc	ttatggctaa	aacctcaaaa	acacaggcaa	caaaaacaaa	aatggaaaaa	33960
tagcacttta	ttaaactaaa	aagctcctgc	acagcaaagg	aaacaacaga	atgaaaagac	34020
aacctgtaga	atgggagaaa	atatttgcaa	actatccatc	catcaaggga	ctagtatcca	34080
					_	

-64 of 185-

gaacacacaa	gtgactaaaa	caactcaaca	gcaaaaaagc	aaataatctg	gtttttatat	34140
		cattctcaaa				34200
		ttacttgtta				34260
atcatactac	actitottct	tgtttttcaa	atttattta	actattatas	gadacttaca	34320
artatasast	2000000000	tatasasas	tastasast	gccaccccgg	gageeeegea	
agraraaaar	agecaacaag	tatgaaaaaa	tgeteaceat	caccaaccac	cagagaaata	34380
aaaatcaaga	ccactatgag	atatcctctc	actccagtta	gaatggctac	tatcaaaaag	34440
acaaaatata	atggatgctg	gcaaagattt	ggagaaaggg	gaactcctat	acactgtggg	34500
tagggatgca	aattggtaat	ggccattatg	gaaaataata	ctgaggtttt	tcaaaaaact	34560
gaaaatagaa	ctaccatato	atccagcaac	cctactacto	ggtatttatc	caaaqqaaaq	34620
aagtcagtat	actgaagaaa	tatatgcact	ctcatottaa	ttgcaacact	gttcacaaca	34680
accasassa	ggaataaatc	taaatgtgca	tcaacadata	aatooataaa	gaaaatataa	34740
catatacact	castacasta	ctattcagcc	attaaagacg	aatggacaaa	tatastaas	34800
		ggacattata				34860
aaacagtaca	tgttctcact	cagacatggg	tgctaaaaag	aaaatggggt	cacagaatta	34920
		gttaatggat				34980
ttttagtgtt	ctatagaact	gtagggcgag	tatagttacc	aataacttat	tgtacatgtt	35040
caaaaagcta	gaagagattt	tggatgttcc	cagcacaaag	gaatgataaa	tgtttgtgat	35100
		tgattcaatc				35160
cactctgtac	ctcataaata	tgtataatta	ttacqtcaac	aaaaaaagga	aaaaaaagaa	35220
		tggaagaaat				35280
		tataaagaac				35340
		aagccttgaa				35400
		gatgctcaac				35460
		acaccacttc				35520
taataacaaa	tgttggtaag	gatgtgaaaa	aatcagaaac	ctcattcgct	gctgttggga	35580
atgtaaagtg	atgcagccac	tttggaaaac	agtctggcag	ctcctcaaat	tattaaatac	35640
agagttaccg	tatgacccag	gaatattcct	cctgggtcta	taaccaaaaa	aatgaaaaca	35700
tatatccaca	taaaaacttg	tacatgggca	tttataqcaa	cattattcat	aacaqcaaaq	35760
		catcatctga				35820
atacactaga	atattatctg	cccatacaag	gagtgacatc	cagctacatg	ctacaaggat	35880
gaatctcgga	aaccttatoc	taagtgaaag	aagccagtca	casatoscos	cacattatca	35940
ttccatccat	caccettace	cagaataggg	aageeageea	agaaagaaaa	tagattacga	36000
attacataca	cggaaacgac	cagaacaggg	adacctatag	agacagaaag	cagaccagcy	
gruggguggg	gergggagga	caggtagtac	accactttee	cagaactact	ggaacaaagt	36060
accacaaact	ggggagetta	aacatagaaa	regatetect	cacagttctg	gagactagga	36120
		cagagctggt				36180
		ctggcaggtg				36240
		gtccaaattt				36300
gctatgcaca	aagtgaagtc	tacttccaaa	agaagggaag	agggaacact	gactaggcta	36360
aacttatagt	cattttaatg	tccgcttttc	ctatgagatt	gtgaacacac	agaagtaggg	36420
tttttatcta	cattotocaa	agtttaataa	gaaaaataga	attcaagaga	aggagttgaa	36480
taggaggaat	ttaatatggg	aactaattac	aaggtttagg	acaggactaa	agagggagtt	36540
adataataa	accasaccaa	agattagcaa	cageccagg	ccatctacct	accaccage	36600
aggacggcga	gotaacccag	agactagtaa	cagtgggatt	angenetet	accacccatg	
aagctggaag	gacaaaggag	gggctattat	cagageceae	aagccagtgt	Cagageeeee	36660
ggctggaget	gggaccaccc	tagagacact	gugcaaagca	gaaaacaagg	gggaaaaacc	36720
etgaettete	cetteeteee	acctttcaat	ctcccactag	tgcttcctac	tagccatact	36780
tggccagaga	cagtgacaag	gaacactgca	aaatgaagtt	tgtaggaatc	atctccctct	36840
gagacagaga	aatatggaag	ggtagaaaat	gaatcagagg	ataaagagaa	aaaaccctga	36900
gtactatctt	atttatcttt	gtatctccag	tgcctaatct	gtctctcaaa	aaaggaaagc	36960
aattgagaga	aactgaaaac	tccaattgaa	atgaaagaat	ggagaattac	tggactagaa	37020
gagaagagaa	aaatttattc	cgcatagagt	aaacaagaat	ggattcacaa	aggacgtgat	37080
		caaagatttg				37140
		cacaatgcat				37200
actosastto	taactgaajj	tccagaatct	gtanacgeee	ttatatacat	caagacttya	
agecaaacec	atagagagatt	actoonatt	cccaagacga	tracataget	accccattt	37260
accadalada	acygaaaccc	actaaacttt	cecettgtat	taaactaaca	tatgtectaa	37320
cagcaaacga	ttctggaatt	cctagagtaa	aatatatttc	gtcaaagtgt	attgctcttt	37380
taatattctg	ctgacctcct	tttgctattt	aggatatttg	tatacacatc.	acacgtaaat	37440
ttggtctata	gtttacatct	acgggcttat	actgttcttt	ttttcatttt	tttaaaattt	37500
ccaaccccca	gtatccatat	actgctctct	atcagggtta	ttttaacttt	gtaaaatcag	37560
ctgagatgct	ttccatgttt	tttttttta	ttttctgcca	catttgaata	gcataggagt	37620
taccaccatc	aaccttggat	tatttaagca	ttcacgattc	cacqtqtqqa	ttttttattc	37680
agagtettte	ttatcattcc	tgctatcagc	acagaaccca	atctcacctt	tecagetata	37740
		cagatgaagt				37800
ccctcttccc	ccttcattta	gacatcacct	tettetagae	catattacat	cacatacact	37860
	Jecetalica	Sacaccacce	cccccayaa	CHICLEGE	gacacycccc	2/000

-65 of 185-

gctcccaacc	cctgctgccc	aattgtgtgc	teteceqtqt	cctqqcctqc	catcctcttt	37920
	tgctccctca					37980
	tccatcacta					38040
ttcattacca	aaatgttatg	tataacctto	caccttasaa	acaacaaaa	descenses	38100
	agactatggt					38160
						38220
	gaagagacca					
	taagtagttc					38280
	tcacagaaaa					38340
	accatagttt					38400
	aaggttgaaa					38460
	tgctgccatg					38520
tactgtgttc	tcaatgccga	gtccacccac	tccataacca	tgtccaagca	atcttgggaa	38580
catcatcacc	atgcttgttt	atccttaagg	tattgcctca	catacagcag	tggctggtca	38640
taaagtcaaa	tgacactagt	ggccaggagg	tcaagagaat	gagtgaggac	aggtgggtag	38700
	ccctagcaac					38760
atacttttca	ccctttcaag	agagactagg	aatctggatt	tttatgtgaa	atatcttgat	38820
tactaaatgt	tgtcaacaga	catgtcaaaa	ggtaaaacta	agtaagttca	tggggcagat	38880
tgactattca	ggttatagaa	ttaaggattc	ttatccaaca	cagataccaa	ccaaaaagct	38940
	atattaggag					39000
	tctatattgg					39060
	ggaaactcaa					39120
	cagatgcaaa					39180
	agcactttgg					39240
	taacatggtg					39300
	gcaccagtag					39360
	cggagattgc					39420
	ctccatctca					39480
	aaaaagagag					39540
						39600
	agggccttgg					39660
	caaggcgggc					
	cggtctctac					39720
	atatatatca					39780
	ccttgacagc					39840
	cagtcctact					39900
	tacgaggctc					39960
tctacaggag	acgagatgga	caaaatgtgg	tggatattaa	gaccagaatc	accaagtaac	40020
agagatgggt	ggtgagtgac	aatcctaaga	tacagaataa	aggctagaac	atgatgccat	40080
tcatgtaaat	taaaaataga	tgcacacaaa	gcagtatacg	cgtgaccctt	gaatagcaca	40140
	gcctgtgtcc					40200
	caacccctct					40260
	acttttatga					40320
ttccttatga	ttttctttat	ctctagctta	cattattcta	agaatatggt	acataataca	40380
catcacacgc	aaaataaatg	ttaattgact	gtttatatta	tgggtaaggc	ttccactcaa	40440
cagtaggctg	tcagtagtta	agttttggga	gtcaaaagtt	atacacagat	tttcaactgt	40500
	agttcccctg					40560
gtattatatg	aacctcatta	gaatagctgt	ctatagggag	aagagaatga	gagtgggata	40620
aaacggaatg	aacaaataaa	ccaacaaatg	cattaacaag	caaaacaaca	gaggggcttg	40680
	tgatgataaa					40740
	aaaccaagga					40800
	aggctgaggc					40860
	aagcccatct					40920
	agctactctg					40980
	agccgagatc					41040
	aataaaaaaa					41100
_	gcctttagag					41160
	tgaaaagcct					41220
	aactcaaaca					41280
						41340
	atcagctgca					41400
	gtggttcttt					41460
	catggggtat					
	gattatacac					41520
	caaagaagcc					41580
aaaaaaaa	accaacatgg	argggggga	ccagggtggc	cccycgggaa	ayctygaaga	41640

-66 of 185-

gaagtggcag	atctctgagc	tggatgatgg	gccactacca	tctgtatatg	gctaattaaa	41700
gaccatgtgt	ggatttttta	ttcagctctt	Ecototcatt	cctgctatca	gcacagaacc	41760
				ctcatggaat		41820
caattecaat		tattgageta	aactttttac	Cicatggaat	tigcagacaa	
ayıtcaaaay	gateettgee	LLLCCaaaal	aaccccgaac	ggttgagtag	tecetetete	41880
ctctctcact	gacaccctct	caaggctgct	gagcacgtgc	catgctatgg	ctttctccaa	41940
catcaggaaa	tgttctccac	tcagtttcac	cttaatacaa	atgtgttctc	tcttcagaga	42000
aggcaaaaaa	attcatgacc	atctgactgg	gagaagtcat	ttctaggtaa	agtgtccatc	·42060
tttttctgag	gaacacagga	ggaaaatctt	acagaaaaga	gttaacacag	caggeetaag	42120
						42180
				aataaataaa		
				tctcaaattc		42240
gagatectee	caccttggtc	tcccacagtg	ttgggattat	agacatgagc	cattgtgctt	42300
ggcccaagac	tgttattctt	aaaaagtctc	ataaaaagca	tggttaatcc	ttggctggca	42360
				ctggaaagag		42420
tocctaaatt	attatataat	ttatoctoaa	ctcctacttt	tcttcaggta	acatagaata	42480
				caataaaaac		42540
contatoto	tasatttaaa	taataaaaa	gattagecet	gegttgtcac	cccgggcgcc	42600
gggccccag	cgagcccccc	-back-backag		gegergeeac	agetteette	
ccggggagtt	aagcacatac	accetgtgtg	actgcactgg	gagaggatgc	ttggaagett	42660
gtgcctggct	tcctttggac	ttggccccat	gcacctttcc	ctttgctgat	tgtgctttgt	42720
atcctttcac	tgtaataaat	tacagccgtg	agtacaccac	atgctgagtc	ttccaagtga	42780
accaccagat	ctgagcatgg	tectagagae	ccccaacaca	gaaataaatt	ataaaaqacc	42840
aaggactggg	catootooco	catgccggta	atctcagcgc	tttgggaggc	caaaacaaaa	42900
aasccaatta	acccassac	ttcaaactta	cacteages	tgactgcgcc	aatocactot	42960
				aactaaacac		43020
				ttttaaaaca		430,80
agaaacctgg	. aaaacaagag	tgccgatggc	caactaaaat	gtctaggaaa	tttctgaaaa	43140
gtaaaaagta	ctcagaacca	gattacctga	gcaaaccata	gcccaataca	agcttgggag	43200
gaggctgtta	tgcagaagga	aatggtaaca	ggtttccagg	aacagacttg	taacagcaga	43260
				ggaactgcag		43320
caggactgtt	ggaccettce	cctcacatoo	aatacacacg	ccactcagca	gcacaccaca	43380
actetteac	aatcacadda	gacacactac	accteateea	acaggaaaaa	aggaattete	43440
						43500
				attcagtatg		
				tactagagca		43560
attattagat	attettggga	agacctaagg	ggacattata	aagagcaagc	agttggtatg	43620
tgacgatctt	tgtgatatac	caagaaataa	aaacacagga	tgaagaccag	atagagaata	43680
atgctactat	ttgtgcaaaa	aaggagaaat	ggagaatctg	attcatattt	gcttgtattt	43740
gcatgaagaa	actttggaag	gtacataagt	aactaacaac	aatggttacc	tacttqtaaq	43800
				tgtgtccgga		43860
tettaateta	acttogagaa	tgaagccgtg	gaccetegeg	gtgagcgtaa	cagttettaa	43920
agggggtgtg	tetagaattt	attecticta	atatttaaat	gtgttcggag	tttattactt	43980
ataataaatt	actactatac	greceteeg	acgeeeggae	gegeeeggag	cccccccc	
				cagacetteg		44040
				cctggtgagt		44100
				gttgcagctc		44160
tgcagaccca	aagagtgagc	agtaataaga	acgcattcca	aacatcaaaa	ggacaaacct	44220
				ggctcgggca		44280
				cattttacag		44340
gctccatttt	acagagaacc	gattggtcca	tttttcagag	agctgattgg	tccattttga	44400
cacactecte	attootocot	ttacaatccc	taaaataaaa	acagggtgct	anataatata	44460
theresees	attaggege	cotocacccc	chance	acagggugu	gactggtgta	
CLLacaatto	cccagccaga	cacaaaggcc	cccaagcece	caccagactc	aggageecag	44520
ctggcttcac	ccagrggarc	cggcatcagt	gccacaggtg	gagetgeetg	ccagtcccgc	44580
gccctgcgcc	cgcactcctc	agccctctgg	tggtcgatgg	gactgggcgc	cgtggagcag	44640
ggggtggtgc	tgtcagggag	gctcgggccg	cacaggagcc	caggaggtgg	qqqtqqctca :	44700
ggcatggcgg	gccgcaggtc	atgagcgctg	ccccccagaa	aggcagctaa	ggcccagcga	44760
gaaatcgggc	acagcagctg	ctgaccaga	tgctaagccc	ctcactgcct	gaaaccatta	44820
gaaccaacta	accaaccact	cccagtacag	addccaccas	gcccacgccc	accoddaact	44880
232c23ac3	cacaaacaca	acatacaca	ccaattccca	cccgcgcctc	tecetecases	44940
				agcccagaaa		45000
cagtgcagcg	grgggcrgaa	gggctcctca	agcgcggcca	gagtgggcac	taaggctgag	
gaggcaccga	gagcgagcga	ggactgccag	cacgctgtca	cctctcactt	tcatttatgc	45120
ctttttaata	cagtctggtt	ttgaacactg	attatcttac	ctatttttt	tttttttt	45180
tgagatggag	tegeteteta	tcgcccagac	tggagtgcag	tggtgccatc	ctggctcact	45240
gcaageteed	cctcccaaat	tcacaccatt	ctcctaceta	aacctcctga	gtagctggga	45300
ctacacacaa	tcgccaccac	acccaactaa	tttttattt	tattttttt	ttagtagaag	453.60
cagaattta	ccatgttage	cadatootot	caatctcct~	acctcgtgat	ccatccccct	45420
-22426666	coacguage	34-93-66	caaceceeg	~~ccgcgac	ccaccogoci	40440

-67 of 185-

cggcctccca	aagtgctggg	attacagacg	tgagccactg	caccctacct	atcttaccta	45480
tttcaaaaat	taaactttaa	gaagtagaaa	cccgtggcca	aacataataa	ctcacgcctg	45540
taaccccago	actttqqqaq	accasacca	gcggatcacg	3343433433	atcaagatca	45600
testestas	acceegggag	googaggegg	actaaaaata	aggicaggag	accyagacca	
-teetggttaa	cacagegaaa	beecegeegee	actadaaca	Caaaaaacca	geegggegeg	45660
grggrgggca	ccggcagtcc	rederacida	ggaggctgag	gcaggagaat	ggcgtgaacc	45720
tgggaggcag	agcttgcagt	gagccgagat	agtgccattg	ccttccagcc	tgggcgacag	45780
agcgagactc	cacctcaaaa	aaaaaaaaa	aaaatagaga	cccggaaagt	taaaaatatg	45840
ataatcaata	tttaaaaaca	ctcaagagat	gggctaaaga	gttgacggaa	caaatctaaa	45900
tattagattg	gtgacctgca	aaaccagccc	aaggaacatc	ccagaatgca	gcccataaag	45960
ataaagagag	catttccqct	gggcacagtg	gtatggcagg	ggaattgcct	gagtccaaga	46020
qttqcaqqtc	acattgaacc	acaccattgc	actccaggcc	tggggaagag	agcaatactc	46080
tototoaaaa	аааааааааа	ttaaattaaa	aaagacagaa	tatttgagag	asasasatoc	46140
ttatttcaac	asacatosas	cataaatcaa	gatattctaa	tteeesagag	accataatta	46200
cacaeccaag	aaacacgaaa	dacadáccaa	aacactcaaa	acttotagea	tagantagan	
atatatata	atatttagaaca	tassagga	taggarates	taccecedag	cyccacagaa	46260
			taccaaatgc			46320
gatecaetet	taagccagtg	tggtgcccaa	gcgcagtggc	tcatgcctgt	aatcccagca	46380
ctttgggagg	ccgaggcagg	tggatcacct	gaggtcagga	gtttgagatc	agtcaggcca	46440
acatggtgaa	accetgtetg	tactaaaaat	acaaacatta	gctgggtatg	gtggtgcaca	46500
tctgtaatcc	caactacttg	ggaggctaag	gcaggagaat	cacttgaaac	caggaggtgg	46560
aggttgtagt	gagccgagat	catgccacac	teccageetg	ggtgacagag	caagattcca	46620
tctcaaaaaa	aaaatccact	cctagacaaa	taatagttaa	attttagaac	accaaggaga	46680
aagaaaaaaa	attgtaaagc	ttcaqaqaaa	ataaacatta	actacaaaga	aacgagagtc	46740
agacgcgtgc	acttcttcct	agataccage	agataaagca	atateteeaa	aattcacaac	46800
attttaacat	agaatcctat	acceartes	gaatattcac	ataccccaa	gaaataaaa	46860
			gtttaccatt			
						46920
aaccaaacaa	ccacccaagg	acceactaay	aaaacaaatg	aaacaaaagc	accaatgatg	46980
agcaaacaac	cagaaaaatt	tacagettac	ctaaataact	gtttatgcat	aatgtatgaa	47040
aacccaaaaa	tttaatatgg	gacagaatta	aaatcatgat	aagattcttt	tttgctttac	47100
tcatggagag	ttcacataaa	cagattatct	tttaatagca	agagaaaaaa	atgtttagat	47160
atgtgtgaaa	aactaagggt	accaaaacag	tgcaaattca	tttatcatca	ggaaaatcca	47220
aattaaaacc	acagtatcca	ccagaataac	taaaaggtaa	aaqacaqaaa	ttaccaagag	47280
ttggcaagaa	tgtggagcaa	ccacatatac	ttctggggta	aataaqttqq	tgcaaccggt	47340
actgaaaact	gtttgctagt	atctactaaa	accgagcaca	tocacagact	acaaccaagc	47400
agticcactc	ccagatacac	actcaacaga	aatgcacaca	ctcactcaac	aaaagacgtg	47460
tactagagtg	ttcatqtact	tactattcat	aatagtccaa	aaatgcaaac	aaccaactoc	47520
			ggatatatac			47580
gagaatgaaa	tgaaccagct	caacacaata	gttcatgcct	aacggcacac	acacagcaac	47640
gagaacgaaa	accadec	ttgaggtgag	aaatttgaga	gtaatttaa	caccccgggc	47700
aggeaaggea	ggcagaccac	agaggeeag	tagactigaga	teageetigge	caacacggct	
theresees	terreset	acacaaaaa	tagccgggca	Lagragerige	aggeetgtaa	47760
Luccayetae	cegggagget	gggrrgggag	aatcgtttga	acccgaaagc	eggaggtege	47820
agtgagcgga	gategtgeca	ctgcactcca	gcctggacga	tagagcaaga	ctccgtctca	47880
aaaaaggaaa	tcaaaaatat	aaaataagat	gacaggaata	atccgcaaaa	gatcagtaat	47940
caaaataaat	ataaatgggc	taaagctacc	tattaaaaga	caaagatttc	acacccataa	48000
ggatagctac	tatcaaaaaa	agagagagaa	taacagatgt	tagcaaggat	gtatggaaac	48060
tgaaattctc	acgcattgct	ggtgagaata	taaaatggtt	cagcctctgc	ggaaaacact	48120
atgctgggtc	atcaaaaaat	taaaaataga	agtactactt	gatccaacaa	ttctacttct	48180
gggtatatac	ccaaataact	qaaaqcaqqq	tcttgaagag	atatttgtac	acccatgatc	48240
atggcagcat	tattcataat	agctatgatg	tggaaccaac	ataaatatcc	tttgataaat	48300
atatogataa	gcaaaatgtg	gtgtatacat	tcaatggaat	attaattagg	2212222217	48360
aacaaaattc	tracacatro	tacaacatoo	atgaaccttg	accaactage	attacatacg	48420
ataagaaaacc	tataaaaaaa	gasatagtat	atgaaccccg	agggcaccac	attaaatyaa	
ataagccagc	tacaaaaaya	caaacaccac	atgaggtact	acaccagaca	cccatgcaag	48480
graceraaaa	raggeaaatt	catagagaca	aaaagcagaa	ragragerac	caggggctgc	48540
ggtaatggat	acagagette	aattttgtaa	gatgaaaaaa	ttctggagat	tggttgcata	48600
acaatgtgca	cacacttaac	actggggaac	tgtaaactta	aaagtagtaa	atggtaaaaa	48660
taaaaataat	aaataataaa	ttttatgtta	ttttaccaca	atatttatta	aaagacaaag	48720
attaactaat	taaacaaaat	ccagccataa	gctaatggta	agagtaacaa	ttaaagaaga	48780
cacagaaaat	tgaaaatcag	tgactagaaa	aagatattcc	atataaatgc	taacaaaaag	48840
caagtacagc	aatataaaga	gaatgaacaa	aaaaaaatt	aaataaqatq	gctcgtttat	48900
tcccaaaagg	tacaattcac	caaqaaqata	caagaattgt	gaacctttaa	gcacataaaa	48960
cagcttcaaa	aatacaacat	ttaaagaaaa	atatatatta	aacatagaaa	tagtagaaa	49020
acceptagaa	gaatcataat	gggagtcttc	aatacaactc	tccatatcas	cacatcaaaa	49080
agagaaaaa	aataanttaa	adatacacaa	aacctgaatt	accatcaatca	aagttgagat	49140
taatataraa	ctotatacca	aatataataa	gagttcaggg	accaccaata	aaccigagac	
cuacacayaa	gracaccc	aalalaClad	gageccaggg	aacagtcgtg	actgacagtg	49200

-68 of 185-

gactgcaaat	taatctgttc	ttaatctttg	tttttctttc	agcactgtgg	cagaatagag	49260
			tttttaaaaa			49320
actctqaaat	caatagaaga	cacatggtga	aaccaaaatt	ctagaataca	gggagaataa	49380
			attgatcatt			49440
atgtacttga	gggagaagaa	aaatqttcca	aagaaaagta	tctgtgatac	aagaaggaat.	49500
					tagaaaataa	
			agggttgaag			49620
			aagtccttgc			49680
			gttaaaactt			49740
						49800
			tcatagaaaa			
accaacaac	atananaan	aaaagctggt	tctttgaaag	gattaataaa	taaccacca	49860
agcaagcerg	tagatagaga	tatatanaa	gtaccaaaaa	aagtactgta	tcagaaagag	49920
aacatacaga	tacatacaya	tacgraagag	tetgttttet	tacaccagaa	tactatatac	49980
aacactacge	tagcacacac	caaaccccaa	taatgttaat	gattttttag	gaaaacagaa	50040
aacaccaaac	ccaccccgaa	gaaacagaaa	aactgagaaa	aataaatgat	catgaaaaaa	50100
			tgcctaaaca			50160
agtetgeagt	caagttetge	caaacttgag	ggaacagata	attettetat	tccagagcat	50220
			cagagaggac			50280
cacagataaa	aatggggtaa	actatatgcc	aaactcagat	accaaaaccc	taaataagat	50340
gctagcttat	tgatgtgaac	aacccaaaag	tgcattttaa	attagcccag	ggttttagag	50400
			atgttaacaa			50460
			atttgggcaa			50520
			aacagaaatg			50580
actcggtgaa	gatacagagg	gaatgctccc	taaaaccaag	cccaagacaa	agattcctat	50640
ttaacctcaa	tagtcaacac	tgcagcgaga	gtaatctatg	gaagacaagg	aaaaaagtaa	50700
aaacatgaga	gacatctgtt	gtttaacaga	caataagatc	acctacttgg	aagaggcaaa	50760
cgaatcaagc	gaaaaactat	taaaactgag	acaggcttta	gtatggaggc	tcagcttcag	50820
ctgtagtttg	ggctaccaaa	ttcaactcgc	ttgcttggag	agttaatcct	gcaaagctaa	50880
tttctgttga	ggtattagga	ttgacaagcc	tgtgctcctc	cctcctccc	catcttcaac	50940
actgaaataa	cacggtgttt	ggaactggat	aacagaatct	tccaaaaaca	aaaattgtcc	51000
tgaagggctg	acttgtgccc	ttactcaaaa	aacactttat	ctgctgcctg	cagctcctac	51060
agttgctggt	ggataagcct	gccaaccagc	tcggcgtaat	tcttcctgca	gagggcaagg	51120
aagagcactt	tcacaggaaa	attttttcc	gaactgtatg	ccgcttatta	cataaactta	51180
cgtgctggca	aatggagctc	cagcaaaata	agatattcag	agtcaaactt	ccttaggaaa	51240
aaaaaaaaa	aaaagcaagc	acataacact	aatttccttg	catgggcact	ggggaaggag	51300
			accaccggga			51360
tgcccccggg	ccttccaggt	gcactgcgcc	gcggcgccc	agctgacccg	ggatgcgcag	51420
ccctagccct	tcccctgtca	ccccggccag	gaaggggcgg	qaqcqcqqcq	gacgccgagg	51480
gcgaagggct	teteggteet	ctgcaccacg	cagcaccccc	aaggcacaac	aggagggtg	51540
cgggaggctc	ccgagaccca	ggagccgggg	ccgggcgtgc	ccqcqcacct	gtcccactgc	51600
			agctgtcggg			51660
			ggggaggagg			51720
			ggcaggacag			51780
ctggggacag	gacacgcgac	gagggaccg	gggcccccgc	gacgaagacg	cagcacgcct	51840
teccagaaag	gcagtcccgt	gececcacga	cggactgccg	gaccccccc	ctcacccacc	51900
catcccttca	gaccacgcgg	ctgaggcgca	aagagccggc	caacaaacaa	actaacaaca	51960
cggctagtac	tcaccaaccc	cactaactca	gcgccgccgc	aacccccagc	gaccacaact	52020
ccaaacactc	actgatgctc	aggagaggga	cccgcgctcc	accaacacct	ccagccatcg	52080
			gctcgctggg			52140
cacctacacc	atcetectte	adccaacaac	caaaaaaccc	ctctctccca	acticticage	52200
teteatetee	ctatctcctc	atectetggt	cgcacataat	coatotttoo	acateceasa	52260
ccagatgtgg	accccatttc	cacactetae	actggaggtt	ttctaaccct	actaccada	52320
ccagcagctt	carceteate	tagaaactta	agaaaatgca	cattatagggt	ggegeeegge	52380
ctattcggtt	tttcctccac	taaaaccato	aaggtggggc	gattettegt	agattetege	52440
aadcccgtca	agtgattgtg	aggagagata	cactttcaca	ccagcagtcc	acatteege	52500
tecaceceae	aaggaggggg	atetteeete	cagtttgaga tggcgctagc	garagara	angetentee	52560
tacagaaaaa	accecece	transcotor	ccgcccaacg	cycacacyga	catterace	52620
addedected	aagtcccca	cotcaecetc	ccctcaacg	tattacataa	gatgeagegg	52620
cctcctccac	gartagetas	tagagagaga	cccctcagca	agagagagagaga	tattananta	
reactorces+	aagaggeetea	tassasstas	ttagaaagag	tanananan	telegacatg	52740
cttgacccc	topacetor-	ztazaacuyu	aggagtggaa	Lyacagaacc	tonggedate	52800
			aggaaaggat			52860
cartattaca	cotootees	grayayyyy	gagcctaggc	caycygttct	cyaccaggge	52920
cggcgccgcc	coreeregee	gedeegegta	catttgggga	ggcccggaga	catttttggt	52980

-69 of 185-

tgtcatgatg	cgggagttgc	tactgttgcc	taagtgggta	gacacgaggg	tgctcctcaa	53040
		actgccccac				53100
		aacccctttg				53160
		ttggtagagg				53220
		gtctgtaagg				53280
gagaggaaga	taataaataa	tagttatag	acgagcaaac	tassassass	atttataat	53340
		tagttataat				
		ttttaaatat				53400
		tgcaaaaatg				53460
		atcaatgtta				53520
		cagaagttcg				53580
cccatctcta	caaaaaaaa	aaaagaaaaa	aaaatgggca	tgtttgcttt	ttccttttac	53640
tctgaacaat	ttaaggagca	ttaaaattat	ctattctttg	aggtttgatc	atttcccagt	53700
		tgatgctttc				53760
		tttattattt				53820
		aaaacaaatt				53880
tgcataaagt	tgaggaaagt	agtcttttgt	gaatctttta	acttctccca	aatatcttat	53940
tttgtgtatt	tttgcttctt	tattttgtta	acttttaaaa	gtgtatttt	ttttcaaaga	54000
		ttttggttat				54060
		ttagacgtat				54120
		tgtgttttta				54180
		tgtgcataaa				54240
		accttccttg				54300
		tttaccatcc				54360
		ctgaaccctt				54420
		aatctgaaaa				54480
		tatgctgttt				54540
		attgtgtttt				54600
		cttataatca				54660
		cctattctga				54720
		cctcacctaa				54780
		ttataaatat				54840
-				_		
		agatataaaa				54900
		ctgctgtgta				54960
		gaagtattat				55020
		atgatectge				55080
		gtaatcccag				55140
		accaccctga				55200
		cgtagtggcg				55260
		agcccagaag				55320
		agaaagtgag				55380
		gagtttttca				55440
		cttgggttat				55500
		gctgtaatga				55560
		gccggacacc				55620
ggaggccgag	acaggtggat	cacgaggtca	ggagattgag	accatcctgg	ctaacatggt	55680
gaaaccccgg	ctctactaaa	agtacaaaaa	gttagctggg	catggtggtg	gacgcctgta	55740
atcccagcta	cccgggaggc	tgaggcagga	gaatggcgtg	aacctgggag	gaggagcttg	55800
cagagagctg	agatcgcgcc	actgcactcc	agcctgggcg	acagagtgag	actccgtctc	55860
		aagaagtgaa				55920
		aatctcactg				55980
		agattgactc				56040
		cagcttactg				56100
		tagctgggac				56160
		cagggtttca				56220
aacctcaagt	gatccacctg	cctcagcctc	ccaaagtgct	gggattacag	acataaacca	56280
ccatgcccag	cctcaattcc	tctttctatc	tootaatttt	tctgaagttg	aaaacattto	56340
		gttcttctaa				56400
		teggetggtt				56460
aatctcaact	acctctctc	gcctccacct	aatttataat	ttogactttt	ttaattttta	56520
++++++	ttaacacac	cttactctgt	caccacacac	adagageeet	accateatet	56580
						56640
		ctcccaggtt tgccaccaca				56700
						56760
rggggrccca	ccargrigge	cagggtggtc	LLYAACTCCT	gaccicaggt	adictacting	20,00

-70 of 185-

cctcaccctc	ccaaagtgct	gagattacag	acataaacca	ccacacctaa	catggtttgg	56820
		ataaagatag				56880
		agatccccat				56940
ttcttcagac	tgtttatttt	attttattt	attttattt	tatgtttgag	atggagtctc	57000
gctgtgtcac	ttctqqaqqc	tggagtgcag	tggcgcgatc	tcaggtcact	gcaacctccg	57060
tetecegaat	tcaagcaatt	ctcctgcctc	agectecega	atagetagaa	ttacaggcac	57120
		tagagacaga				57180
		tataacctcc				57240
cagcctcctg	agtagctggg	actacaggca	catgccacca	tgcccagtta	attttaattt	57300
ttttgtagag	acagggtctc	catatgttgc	ccaggctggc	ctcctactcc	tggcctcaag	57360
		cccaaattac				57420
		tttcatatgt				57480
		gaggctgaca				57540
ctgagattat	ttctgggaaa	gcaggagata	cggtcaccct	acttatagtg	tgcttgtctt	57600
tggattgttg	aatttggagt	ttctatttgc	aggettattt	caactgggca	gccttgatcc	57660
		cgttctctcc				57720
tacttacctc	arttererae	cctcccactc	cctasaacc	taaggaaggaa	tagtaggtas	57780
cacctagete	agticccac	~~~	cccaaaagcg	Laaccayyaa	cccigccca	
ggictacige	egretteegt	gggctgtttc	agttectatt	acccagagte	aaacteecag	57840
cattccctac	ctgattccag	acttggagtc	cagagettta	acctcttcag	gccaactccc	57900
cactttgcat	ttctgtccct	atatcttagt	ccatggagat	acatttcatq	tctttgagtc	57960
		ctgtttttta				58020
tcacccacac	tataataas	tgacgccatc	tcaactcact	deasected	cetectaget	58080
teacccagge	cgcggcaa	cgacgccacc		gcaacccccg		
		agcctcccaa				58140
		cttttagtag				-58200
gtcttgaatt	cctgacctcg	tgatctgccc	atctcggcct	cccaaagtgc	tgagattaca	58260
ggcgtgagcc	actotocca	gccaattttg	ctttttttat	atttcattqc	tatatottta	58320
		atatgcattc				58380
						58440
aactagaaag	aaaacccaaa	aaatctcaaa	adataccada	aagcaacaac	Cicacagace	
atactcactg	acccccaata	aaataaaatt	agaaattaac	cacaacttaa	caaaataaag	58500
tactcaagtc	agagaggaaa	gaggaaataa	acatcaaaat	tacaaagtct	aggcggtggc	58560
tcacqcctqt	aatcccaqca	ctttgggagg	ccaaqqcqqq	cagatcacaa	ggtcaggaat	58620
		atggtgaaac				.58680
		tgtaatccag				58740
tgaacccagg	gagacgaaga	ttgcagtgag	ccaaaatcgt	gccactgcac	rreggeergg	58800
gtgacaaagc	gagactccat	ctcaaaaaaa	aaaaaattac	aaactcttta	gatagaaatt	58860
ttggtgtttt	tttttgagac	ggagtctcac	tctgtcgcag	aggctggagt	gcagtgggac	58920
		tccatctcct				58980
		gcgcccacca				59040
						59100
		ttggccaggc				
acctgcttca	gcctcccaaa	gtgctcagat	tacaggcgtg	agccaccgca	ccccacctag.	59160
atagaaattt	caacatgagg	ccgggcacaa	tggctcacgc	ctgtaatctc	agcacttcag	59220
gaggctgagg	cgtgggagga	tcacttgggc	ccaggagttc	aggaccagca	tgggtgacag	59280
agacagaccc	totototatt	tatttgaaaa	aaaaaaaaa	aaanagagag	agaaagaaat	59340
ttcaacatca	agactatete	tcaaaccctt	gaagatatta	aaaaaaaaaa	agaaagaaaa	59400
cccaacacga	adageacee		cgagacgccg	gcaaaaagcg	acccaaagga	
adatgtatta	cigigigiga	atttgcttga	aaataagaaa	gaggeeggge	grggrggera	59460
acacctgtaa	tcccaacact	ctgggagtcc	gaatcaagtg	gatcatgagg	tcaggagatc	59520
gagaccatcc	tggctaacat	ggtgaaaccc	tgtctctact	aaaaatacaa	aaaattagct	59580
aggcgcggtg	gctcatgcct	gtaatcccag	cactttggga	gactgaggca	ggtggatcac	59640
		ccagcctggc				59700
2+2022222	tagatagaga	taataataa	taaatataat	aaaccccgcc	ananaatan	
		tggtggtggg				.59760
					tcgcaccact	59820
acactccagc	ctgggcaaca	gcctgggtga	cacagtgaga	ctccatctca	aaaaatacaa	59880
		gcctgcgcct				59940
ggagaat.gga	gtgaacctgg	gaggaggagc	ttacaataaa	ccgagatccc	accactgcac	60000
		aagactcttg				60060
annage cegg	Joyacayayc	aagaccccg	aaaaaa	aayaaaaaaa	tttaacaaa	
yaaccctgat	aataaagaaa	ccaaatgttc	aactctcaaa	gctcggacac	LLLaaagaaa	60120
taattaataa	aggcagaagt	taaagggagg	atgataaagc	aattttttt	gttggttttt	60180
ttgagatgga	gtcttgctct	gtcacccagg	ctggagtgca	gtgatgcgat	cttggctcac	60240
tgcaacctct	qcctcccaaa	ttcaagcaat	tetectacet	cagcetecto	agtagetogr	60300
actacacoto	cacaccacct	ggcccagcta	atttttatat	ttttattage	gacggggt++	60360
-accatatit	geraggergg	tctcaaactc	cigaleteag	graatetgee		60420
LCCCaaagtg	ctgggattac	aggcaggcgc	caccgcgcct	ggcctaaagc	aaaatattgg	60480
ttctgtgcaa	aaggtcaata	aaaagagcaa	acgtttacaa	actggagcca	gcacccattc	60540

-71 of 185-

ageteagtgt	gtctggagaa	aaaacaatct	cgcttcagaa	ttcatgatta	cacaaccett	60600
		ctatgttgct				60660
		tattcagaca				60720
		agctgctgac				60780
agcatttaag	agtgaacctc	cgcctccccg	cacgggcaaa	accacccacc	cacagaattg	60840
		tecteteace				60900
		ctggatccac				60960
		ccatcaatcc				61020
atatatttag	tgatgtttct	cccatgtggt	aaaatcactt	agcctctctc	ctcccccagc	61080
tactatccta	tttatttctt	tccattctct	gcaaaacttc	tcaaagcatt	gtgtctatgt	61140
		cccgttctct				61200
		ctgcactgcc				61260
		catttgacct				61320
tttctcagcc	aggcgtgatg	gctcacacct	gtaatcccaa	cactttggga	ggccaaggcg	61380
ggaggatcat	gagageceag	gagttcaaga	tcagcctggg	caacatggca	agaccctatc	61440
		gccagtgtga				61500
		acttgagcct				61560
		gagtgacagc				61620
		tctgattctc				61680
cctttgccgg	ttcttcctca	tcctcctgat	ctcttgacct	tgaagtgccc	cagagtacag	61740
tcttttttt	tttttttgag	acgcagtctc	gtctgtcacc	caagetggag	tacaataaca	61800
		tctgcctcct				61860
		gcacatgcca				61920
		ttggccacgc				61980
ccgcctcggc	ctcccaaagt	gctgagatta	caggcatgag	ccaccacacc	cggcccagag	62040
		tctacctata				62100
		tagactgatg				62160
						62220
		caggctggag				
		ccattctcct				62280
ggcacccgcc	accacgcctg	gctaattttt	ttgtattttt	agtagagatg	gggtttcacc	62340
atgttagcca	ggatggtctc	gatctcctga	cctcqtqatc	cqcccatctc	ggcctcccaa	62400
		gagccaccgt				62460
		ctcagaactc				62520
		ctcaaaagtc				62580
		aatgtccaat				62640
attcttgact	cttctctatt	acacacccta	tecaatettt	ctgcagatcc	agtcgacccc	62700
caaatccagt	tagctctcat	catctcccct	qttaccccct	gatccagacc	atcttcctct	62760
		attctcctca				62820
						62880
		gcagtcagag				
		ctgtcgtgat				62940
gagtctttcc	agtgacctac	atgatetgee	tattatcacc	tcccacttct	ttccccttgc	63000
tcactccact	ccaqctctgc	agctgtcctt	tctqtttcct	gaacaqccca	gattttgctt	63060
		ctgtcccctc				63120
		tcctgaccac				63180
						63240
		gcctgtaatc				
		gagaccagcc				63300
acaaatacaa	atagtagcca	ggtgtagtgg	cacacacctg	taatctcagc	tactcaggag	63360
actagaacaa	gagaatcgct	tgaacccaga	aggcagagga	ggtgcagtga	gccaagatca	63420
		ggtgacagag				63480
						63540
		cttctcttca				
gaatacttta	cattgtttta	atggaagttc	teegttteee	cccaactaga	atggatactt	63600
cctgcaggta	ggcactctag	tcctcccatc	caagtactaa	ccaggctcaa	ccctgcttag	63660
		caggcctgtt				63720
		tgttgattct				63780
						63840
		ttcaataaat				
ccaatctcag	aaatgcagga	ctggttctac	actagaaaat	ttttcaaggt	cattetetgt	63900
		ggaaaatttt				63960
tgatttctqt	tttcaaaaac	tcttagtggc	tgggcgaggt	ggctcacatc	tataatccca	64020
		gggcggatca				64080
		ctctactgaa				64140
						64200
augeetgtag	Luccagetae	ctgggaggct	gaggcaggag	aarygettga	accogggagg	
		gatcatgcca				64260
ctccatctca	aaagaaaact	cttagtgagt	ttaggaatcc	aaggaagacc	ctcaaactaa	64320

-72 of 185-

atagataato	tagctaccag	aagccttcag	r taaaccttaa	. cactccatgg	tgaaacatta	64380
gaaacattcc	tactaaaaga	caggctaaga	atgcctgcaa	tetteaegge	tagtccaaga	64440
agtcaaaaag	aagaaatgag	, cgctgattta	aaaaaataaa	caaacaaaaa	actaccgatg	64500
cagaggctgg	cagcaaggac	: tgaaggactg	tacagtactt	gcctggagca	gqcqqatgqc	64560
cacacccctg	cgaagcctgc	: tcagctggct	gggggacgct	ccagtgtgtg	agtggcagga	64620
				tcctcccca		64680
				gggtcaatcc		64740
				acagcccaaa		64800
				tggccagact		64860
aaaggtggtg	gttgttcttc	ctacttcttg	tccctccagg	gcttcctttg	cctgtgtgct	64920
gaacctgctt	cttttaattt	tttttaactt	ttttaaattt	ttaattgttt	taattaaaac	64980
aaattttgaa	aactgtctga	acctgctttt	gaaccctgct	atgatttgaa	tatttatccc	65040
ctgccaaact	gattttgaaa	cttaatctcc	aaaqtqqcaa	tattgagatg	gggctttaag	65100
cagtgactgg	atcatgagag	ctctgacctc	atgagtggat	taatggatta	atgagttgtc	65160
atgggagtgg	catcagtggc	tttataagag	gaagaattaa	gacctgagct	agcatggtcg	65220
ccccttcacc	atttgatatc	ttacactgcc	taggggctct	gcagagagtc	cccaccaaca	65280
agaaggetet	caccagatac	agetecteaa	ccttqtactt	ctcagcctct	gtaactgtaa	65340
gaaataaatg	ccttttctt	atqaattacc	cagtttcaga	tattctgtta	taaacaatag	65400
				ccattccaat		65460
tatgcttaag	agagccagag	ttggccaggc	gtggtgactc	acgcctgtaa	ttccagcact	65520
ttgggaggcc	qaqqcaqqtq	gatcacaagg	tcaggagatc	gagaccatcc	tggctaacac.	
ggtgaaaccc	catctctact	aaaaatacaa	aaaaattagc	tgggcgtggt	agtgggtgcc	65640
				tggcgtggac		65700
gagettgeag	tgagtcgaga	tcqtqccact	gcactccagc	ctgggtgaca	gaatgagact	65760
ccqtctcaaa	aaaaaaqaqa	gccagagttt	atttctcttc	cttgcaacca	agaaatctgg	65820
ctqqtqcact	qaaqtttcca	taaataataq	caatttaaag	actctttcca	agccaggcaa	65880
tgcctagcct	tatataatcc	ttataataat	acattcattc	attcatttgt	tcaaccaact	65940
				tggtggctca		66000
cctagcactt	taggaggcca	aggcaggtag	atcacctgag	gtcaggagtt	cgagaccaac	66060
ctggccaaaa	tggtgaaacc	cctactctac	taaaaataca	aaaaattagc	taaaaataat	66120
ggcggacacc	totaatccca	gctactcgtg	agactgagge	aggagaatca	cttgaacccg	66180
ggaggcagag	gttqcaqtqa	gccgagatcg	caccactgca	ctccagcctg	ggcaacaaga	66240
gcgaaactcc	acctcgaaaa	aaaaaaaaa	aaaaaaaaa	ggccggggct	gggcgcagta	66300
gctcacgcct	gtaatcccag	cactctqqqa	qqccaaqqca	ggagaattac	gaggtcagca	66360
gatcgagacc	agectgacca	acatggtgaa	accccatctc	tactaaaaat	acaaaaatta	66420
teegggegtg	gtggcgcaca	cctctagtcc	cagctacttg	ggaggctgag	gcaggagaat	66480
cgcttgaacc	cgggaggcag	aggttgcagt	gagccgaaat	catgccactg	cactccaqcc	66540
tgggtgacag	agtgagactc	cgtctcaaaa	aaaaaataaa	aaaaaaaaa	gaattcaaaa	66600
attgtagagt	tatagtgtgc	ttctagttta	qttqaqaqqa	catctgtcct	tcaaqqaaqq	66660
ctagaatcta	taccctgagt	ccttactgaa	atcaatccaq	cagtcaaaac	atgggaccaa	66720
cgatcacage	agtaagatag	gaagagcacc	tttqtacatt	tagctcatgt	tgagataagc	66780
cactgacaga	gctgaaggaa	gctcacagtt	ctgggttcca	tcctttggca	tttaaaaaga	66840
aaagtgctaa	gaaaattcgg	ttggtcacgg	tggctcacgc	ctgtaatccc	aacactttga	66900
gaggccaagg	caggcagatc	acgaggtcag	gagttcgaaa	ccagcctggc	caacatggtg	66960
aaaccccqtc	tctactaaaa	acagaaaaat	tagecgggea	tggtggcgca	tocctataat	67020
cccagctact	caggaggctg	aggcaggaga	attocttoaa	cccgggaggg	ggaggttgga	67080
gcgagtgaga	gcaggccact	gcactccagc	ctgggagaca	gagcaagact	ctatctcaaa	67140
aaaaaaaag	aaaaaaagaa	agaaaggaaa	aaaaqaaaqa	aaaaaaaga	aaaaagaaaa	67200
ttcaggccag	gccaggcctg	gtggctcaca	cctqtaatcc	caacactttg	ggaggctgaa	67260
gcgagacggt	gccttagccc	aggagtttga	gaccagcctg	agcaacatag	cgagaccctg	67320
tetetataaa	aaaaaatttt	tttttqqcca	gacgcagtgg	ctcacgcctg	taatcccagc	67380
actttaggag	accaaaacaa	gtagatcaca	aggtcaggag	atggagacca	tectogetaa	67440
cacqqtqaaa	ccccatctct	actaaaaaat	acaaaaaatt	aaccgggcgt	aataacaaac	67500
gcctgtagtc	ccaqctactc	qqqaqqctqa	ggcaggagaa	tggcgtgaac	22422422	67560
gagettgeag	tgagccgaga	ttgcgccact	gcactccaga	ctgggagaga	ataagactee	67620
gtctcaaaaa	aaaaaaaaa	aaaaaaaaat	taattotcag	gtgtgctggc	atgragatet	67680
agtectaget	acticoggagg	ctgaggtaag	aagatcgctt	gagcccagga	atteaaaact	67740
gcagtaatag	tacctctcac	tctaccctog	gtgacaatga	gaccctctct	caaaaaggcc	67800
gaaaaaaaaa	aaagaagaaa	agaaagaaag	aaagagaaga	aaggaaggaa	gaaagaaaga	67860
aaaagaaaag	gaaggaagga	agaagaaaaa	aaaagaaaga	aagaaaagag	agagaagtte	67920
aaaqaccaaa	gagtcaggat	cccaaaatag	tttttatott	ttatttattt	atttacttat	67980
ttattttta	gacagtatgg	ctctatcacc	caggetggag	tgcagtgatg	caattacaac	68040
tcactocaoc	ctccaaactc	gactcagata	gccctcccac	ctcagcctcc	caaataacta	68100
5 5 -						55455

-73 of 185-

ggaccacagg	cgcgtgccac	catgcccagc	taattttta	attctttgta	gagatgaggt	68160
ctctatatgc	tgcccaggct	ggtctcgagc	tcctgggctt	aagccatcca	cccgcctggg	68220
cctcccaaag	tgctgggatt	acagaagtga	gccaccgcgc	ctaatcgggt	ggtttgtttg	68280
tttattgacg	gggtctcgct	gctgcccagg	ctggagtgcc	agtggctgtt	cacaggtgca	68340
gtcctggagc	attgcatcag	ctcttgggct	ctagcgatcc	tccagagtag	ctgcagctgg	68400
gattccaggc	gcgccaccgc	gcggggctca	gaatgggttt	ttatattgag	ggttatgctg	68460
ccacctagag	gatatatgta	gtaccgaact	gtgtgcgcag	ggaggctgag	attacaataa	68520
				caagatttca		68580
aaaaaaaaa	aaaaaaaaa	aagaattgaa	agtaaggtct	tgaagagata	tttataccta	68640
tatggtcata	qcaqtattaa	ctttqaccca	ctaqctaaaa	cacaaaagca	acatototot	68700
gtcagcaggt	gaacggataa	acaaaatgtg	gtatatatgt	acaattgaat	attattcagc	68760
				ctgtaatcct		68820
				gaacagcctg		68880
tgaaacttca	tctctactaa	aaatactaaa	attagecggg	catggtggca	cttqtctqta	68940
atccaaqcta	ctggggaggc	taaqqcaqqa	gaattgcttg	aactcaggag	ccagagatta	69000
caqtqaqcta	agatggcacc	actocactcc	agcctgggca	acagagtgag	actccatctc	
aaaacaaaca	aacaaaaaat	tattatttcc	aaagaaacaa	gaccctgggt	ccatttccca	69120
gcccacacct	gatgttgact	cacaacacac	agcctggttt	gctatgagcc	tocttcattt	69180
aattotcacc	ttaacttcac	atcaccetca	agtcctggaa	taactctttg	ctgacctttg	69240
tatactaaac	catctccatq	tcgctcaacg	tgcagtccct	ctcactgcac	tgagtcaata	69300
accadacata	atctgactgc	agggtcatcc	ttaataactt	aggetgaete	gggcatagca	69360
				ataaactcta		69420
				ctcgtgacag		69480
ctctttccca	ggatttcctc	ctctacctcc	tcaagtccca	ctgctctgca	aagaccaaaa	69540
				agcctcctct		69600
tttaaacaga	gtcttttact	gcagatccca	agaacagcca	caccctctc	teccacecae	69660
tccagacaca	cccaggtaat	tatagcaccc	agggtaacta	tgtagatgga	gtccctggaa	69720
catotogata	atacccccta	ggagtatgca	aaagcaacat	tgctggcacc	tgcagagaac	69780
agggtgagat	ccaggaatca	gagcatgggc	ctctgggagg	tagggatgtg	accadacada	69840
ctoccaaaaa	ttggtagagc	aaggccacag	gatetttetg	accttccttc	Casacadadd	69900
				tcctgggggt		69960
atcccaatta	cccggacttc	tataaatata	ctactgaggt	ccttttcatg	agaagcatgc	70020
tatccttcca	cctgctggga	gcaagagtga	caacttcaat	actataatag	cagtggcata	70080
				ccaagcagga		70140
				tagatagtaa		70200
				cgctattgta		70260
agccatcagg	gttatgtaaa	tgagtgagtc	tgattttgtt	tcagcaaaat	tttatttacc	70320
aaaacagaca	atgagtgggc	tggatttggc	ccatgatcct	tagtttgcca	actcctgctt	70380
tgggctcacc	cagatctgat	tttgaattct	ggctctgcta	ctggttagct	gcaggagctt	70440
				agcaataatt		70500
aagagtgtta	cctcacgcct	gtaatcccag	cactttggag	gctgaggcag	gcggatcacc	70560
tgaggtcaga	agttcaagac	cagcgtggcc	aacgtggcaa	aaccctgtct	ctactaaaaa	70620
				cccagctact		70680
aggcagggat	actgctagaa	cctgggaggt	ggagcgtgca	gtgagtggag	atcacacctc	70740
cacactccag	cctggccgac	agagcgagac	tccatctcaa	aaaaaaaaa	aaaaagagtg	70800
ttagaaggtt	ttgagataat	gaataaaaga	tgccttgtgt	atactaagta	ttcaacaact	70860
gatagctgca	ttggtctaat	tataacagtt	tagaagcgat	tgagtcaaca	aatgctggat	70920
ttgtcaggga	ggacttccta	tcaggaggta	gatcttgggc	tgagtcctga	agcaaagata	70980
				tattattatt		71040
gagtctcttg	ctctgtcacc	caggctggag	tgcagtggcg	cgatctcggc	tcactgcaac	71100
ctctgcctcc	caggttcaag	cgattctcct	gcctcctaag	tagctgagac	tacaggtgtg	71160
tgccaccaca	cccggctaat	ttttatattt	ttagtagaga	cagagtttca	ccatgttggc	71220
				cctcagcctc		71280
ggaataacag	atgtgagcca	ccgcacccag	cccagaacca	tttttcaatc	cttggctctg	71340
ccttttatta	gctgcaagat	ctcaggcaat	ttatttaacc	tctccaaaga	ctcattttct	71400
cattcacaaa	atgaggcaaa	taataatatc	tactatccca	ggttgtcatg	agaattaaat	71460
gcaacatgac	atttaatgaa	atgagaagtc	ccttggacat	taactggcta	aagtatgtgc	71520
tcgacaagga	tatcatttta	ggtggatact	tagcatctca	gaactgatgc	tcacaatgga	71580
atatcattga	aacgcattaa	aattcatttt	aaatgattgt	aggtagtgag	gcaattgaaa	71640
gaagaagaca	agaggactga	ttataatgct	tcaggctcac	tagtctcctt	ttaggaggga	71700
aaaacaattt	caagttaaat	tttaggctct	agatttttac	ccctgctgct	cattagaatc	71760
acccagattg	atgaaatcag	agcccatctg	aggctgtgtt	tttcatctcc	agaatgagag	71820
ctgttgtggg	gattaagttt	ttgaaaaagt	acatctaaca	ggtgatcgaa	aatgatagtg	71880
				_		

-74 of 185-

atattattoc	agtgatggtc	attattotto	ttattattat	actgaaagag	gcttcagttt	71940
	aaagtgaggg					72000
	ttgtttttta					72060
	actgcaacct					72120
	ggactacagg					72180
	ttcaccatat					72240
	cctcccaaca					72300
	tgatcactga					72360
	atgcaagagc					72420
	gattagacat					72420
accaacaaa	gttattctgg	cattccattt	atteacttta	tttacaccc	ttacttccac	72540
caccaccetta	aagatatggc	Caccccccc	taceatacat	catacagece	ateccaecae	72540
	caaggtgggc					72660
	gcaaccagct					72720
	tcatttctca					72720
	catctcaggc					72840 72900
	attgggattt					
tratareas	ggttgtaatt	gttyaaaaaa	agagaggatg	catagicita	therene	72960
tagicaaagi	caacaccatg	acaaacaaya	gtcaaatcct	gagatgtgaa	ttggggacat	73020
agagaggaa	aaccctgaga	agettgeace	Licagacece	tcaatacccc	tgeteeeag	73080
agaaggetgg	acattgacct	cagcacagge	aggageeetg	caagatgcca	tttgtcctac	73140
	cccctccact					73200
cccgageaag	aaagtcagag	cetgetacag	gagaaaatac	cacactggcc	aaaggattca	73260
acatattaan	ccactgtgtg	Lyggaggaac	cagggaatca	tgtgtgggag	tcaatgttga	73320
agetgttgga	ctgggggtgg	ggtggaatat	aageetggee	ccggggagtt	ccccccccc	73380
	acccacaact					73440
taatagatgg	ccaggactga	acciggeeta	gagtaaaatg	aggaggatag	tgccagaact	
ccccaacac	actattgagg	aagaggtcag	aaggettaag	gaggtagtgt	aactggaaag	73560
	ccagacccca					73620
	cagtaaagtg					73680
taataaaaaa	gcgacatggg	ottteteree	gagigildi	atgattattt	ottgatteta	73740 73800
actoatogat	agggtggatt cccccactt	ttagaggata	tagagtaagt	taataaaatt	accidedaya .	73860
	tcatggccct					73920
	agtgaggacg					73980
	ttctttatca					74040
	cctcctatct					74100
cattttacca	tggagtcgct	ctgattccaa	tacctctaac	agcecageag	ttggaattga	74160
	aagacctgag					74220
	ctgggtggtg					74280
	atatgacaag					74340
ttccaagtac	caccccccgc	ctttcttctc	cttttccttc	tttctgattt	tactacatoc	74400
ccaggcatgc	tacggcccca	actcacattc	ctttccttat	ttaaaaatoo	actagaacta	74460
aacacaataa	ctcatgcctg	taatcccagc	actttgggag	accasaacaa	acadatcata	74520
	atcgagacca					74580
	agccaggcgt					74640
	tggcgtgaac					74700
gcactccagc	ctgggtgaca	gagcgagact	ccgtctcaaa	22222222	222222222	74760
tagctgggga	tggtggcgcg	tacctateat	accadctact	ctggagggtg	addcaadada	74820
atcocttoaa	cccagtaggc	agaagttaca	ataaaccaaa	atcttcacac	tacactacaa	74880
cctaataaca	gagtgagact	ctatataaa	222222222	202222222	adacacacaa	74940
						75000
	gacagagtca gtatatttta					75060
	caacgtgtgg					75120
aagaatcctt	gatccgtccg	acataataac	tcacgccttt	aatcccacca	ctttaggaag	75180
ccaaggtgga	aggatcactt	aaggt cagga	attcgagacc	accetacea	acatootosa	75240
acctcgtctc	tactaataat	acaaaaaaa	ttagggggg	ataataataa	atacctatas	75300
teccaggtae	ttgggaggct	gagggaggag	aatagcttos	atccaccacc	cactacacta	75360
agccgagatc	atgccatgcc	actactorac	tocagootgo	aceacadada	gagactgtct	75420
Сааааааааа	aaaaaaattg	ttaaacataa	taactcacac	ctotaatcco	aggactetec	75480
	ggggtggatc					75540
tgaaacccca	tctctactaa	aaatacaaaa	attagetggg	cataataata	ggcacctga	75600
atctcaccta	ctcaggaggc	tgaggcagga	gaatttcttc	aacccaccac	gcagaggttg	75660
	~554556	-3~33~~334	5	-acceaggag	22-253	, 5500

-75 of 185-

cagtgagcca	. agatcgcgcc	tetecacted	atcctgggtg	acadadcaad	actatototo	75720
	aaaaaaatac					75780
atatataaaa	gagatasta	tasttatasa	ggacaccccg	cagaacacca	Latygagaca	
tana	gacatcatgc	cgactgtaag	caayaaacyy	caagegeeee	agaaacacag	75840
	. tacatgccag					75900
	. catttttaaa					75960
aaagaggggt	ctggcctttg	tccccagcta	ctggacataa	tctctttaaa	ctcttgaaat	76020
atcattcctg	atagaagtat	ttttgttttg	actaggggcc	ttgggccagc	cagatagcaa	76080
caatgtgatc	tgggttgggg	gctttggatc	aggtggcatc	agtgtgacct	cctgagtggc	76140
tagagactag	aatcaaccac	atgggcagac	aacccaqctt	acatgatgga	attccaataa	76200
agactttgga	cacaagggct	tgggtaagct	ttcctqqttq	gcaatgctct	atactgggaa	76260
acccattctq	actccatagg	gagaggacaa	ctqqatattc	tcatttggta	cctccctaaa	76320
ctttgcccta	tgcatttttc	ccttatctaa	ttattattat	tattatgaga	togaateteg	76380
ctctgtcacc	caggctggag	tacaataaaa	tgatctcaac	tcactgcaac	ctctacctcc	76440
ccaattcaaa	cgattttcct	atctcaacct	cccgagtagc	toggactaca	gatgcatacc	76500
accacacccc	gctaatttt	ttgtattttt	agtagagacg	gggtttcacg	ttagccagga	76560
togtetegat	ctcctgacct	catottccoc	ctacctcaac	ctctcaaagt	actaggaata	76620
Catototoao	ccaccacacc	cagcccctt	aactaattat	taaaqtqtat	ccttgagctg	76680
tantaaatta	taaccgtgaa	tataacacct	tttagtgagt	tttatasaas	cttctaccaa	76740
attatcaaac	ctaaggatag	ccttagagag	ccctgrage	agagttagta	tararratar	76800
	gtgtgtacca					76860
attactaccgc	ttacactcaa	tatastata	thtattata	cataccactt	accetagege	76920
tattatta	agactttcta	atttangeac		Ligaagtaaa	teetttagga	76980
	ttttttaaa					77040
cttgttattt	ttgtgggtac	gragragara	tatgtattta	tggagtacat	gagatgttt	77100
gatacaggca	tgcaatgtga	aacaagcaca	tcatggagaa	rggggratcc	atcctctcaa	77160
gcaatttatc	cttcaagtta	caaacaatcc	aattacactc	tttaagttat	tttaaaatgt	77220
acatttaatt	ttgtattgac	tagagtcact	ctgttgtgct	atcaaatata	atttttttt	77280
tttttgagac	agagtctcac	tcagtggccc	agactgaaag	tgcagtggca	caagctcggc	77340
tcacttcaat	ctctgcctcc	ctggttcaag	cgaatctcct	gcctcagcct	cccacatagc	77400
tgggattaca	ggcacacacc	accatgccca	gctaattttt	atatttttt	agtagagacg	77460
	atgttggcca					77520
tcagcctccc	aaagtgctag	gattacaggc	atgagccacc	acacctggcc	aaaatagaat	77580
	gaggtctgct					77640
gttgtcagct	tgggctggag.	tgcaatagca	cgatctcagc	tcactgcaac	ctccacctcc	77700
	caattctcct					77760
ccaccacacg	cggctaattt	ttgtattttt	agtagaaatg	ggggttcacc	gtgttggcca	77820
ggctggtctc	gaactcctga	cctcaggtga	tccacccacc	ttggcctccc	aaagtgctgg	77880
gattacaagc	atgagccacc	acgcacagcc	aattttttcc	gtttttgtct	gaaatcttat	77940
tttgtgtcat	ctttgaaata	tatttttgat	ggatataaaa	ttgttggttg	atagttatta	78000
tcattattat	tattattttg	agacagggtc	tcactctgtt	gcctatgctg	gggtgtagta	78060
atgtgatctc	ggttcactgc	agacttgacc	tcctagggct	caggtgatct	tcccacctca	78120
	tagctgggac					78180
	tgaggctttg					78240
aatccaccca	ccttggcctt	acaaagtgct	gggccatgac	tagccagcag	ttacttttta	78300
	aatatttaat					78360
gctgtttact	tggcactctt	tttttttt	tttttttqa	gacagagtct	taccetatea	78420
cccaqqctqq	agtgcagtgg	cataatetta	gctcactgca	agetetgeet	cccaaattca	78480
caccattete	ctgcctcagc	ctccccacta	actaggacta	aagggggggg	ccaccacaca	78540
coactaattt	ttttgtattt	ttcatagagt	tagaatttca	ccatatteac	caggatggtc	78600
togatotoct	gacctcgtga	tetatecace	teggettee	aaaatactaa	cattataccc	78660
gtgagggagg	gcgcccagcc	tctttttt	tttttttaa	acconditate	actototoat	78720
ctaccasata	gctgggatta	cagatacata	ccatcacaca	ccccacccc	ttetatte	78780 78840
actacacata	gggtttcacc	atottagasa	gactactatata	cygctaattt	actionates	78900
tetacetace	ccagcctccc	acgccagaca	ggceggecee	gaactcctgg	aggage	78960
actcetttea	aggtaatctg	attacata	ggcacgagcc	accycacccy	gccaagtagc	
						79020
	tgaagttttg					79080
	catagtgatt					79140
	gttagctttt					79200
Lacaattyat	ttgattaaaa	ccaaaaccag	ggccgggtgc	agtgactcat	gcctgtaatc	79260
teaacacttt	gagaggctga	ggcaggtgga	cacctaage	tcaggagttc	aagaccagcc	79320
Lygocaatat	ggtgaaaccc	cytctctact	addaatacaa	aaattaccag	gcarggragc	79380
acacatttgt	agtcaggagg	ccgaggcagg	ayaautgett	gaatccagga	ggtggaggtt	79440

-76 of 185-

gcagtgagct	gagatcccac	cactgcagtc	tggcctgggc	gacagagtga	gatgagaatc	79500
tatctcaaaa	aaaaaagtta	tgaatgtttg	ataaactata	tttgttagaa	tatttattat	79560
agaatagtat	tcattcattt	ttaaacaatg	ttagattaaa	agattaagta	gatttgtgat	79620
agaacaccac	ccaccgaccc	ccaaacaacg	ccagaccaaa	ccattcattg	gaccegugae	
aattaactta	ctgattttac	ctcactgatt	tgttgtaatt	aatacaactg	gtataaaaag	79680
actgtgacga	ggccgggcat	ggtggctccc	qcctataatc	ccagcacttt	gggaggctga	79740
		tcaggagttc				79800
3304330334			tagaccagcc	cgaccaacac	ggcgaaaccc	
Catettact	aaaaatacaa	aattagccgg	regragrage	gcatgcctgt	aatcccagct	79860
cttcgggagg	ctgtggcagg	agaatcactt	gaacccggga	ggtggaggtt	gcagtgagcc	79920
gatatogogo	cattggagtg	cagcctgggc	aacaagaggg	aaactccctc	taaaaaaaaa	79980
22222222	22232222	0030003330		thereses		
aaayaaaaa	aacacacaaa	acaaaacaac	actgtgacgg	ttcccaaaaa	ttaggagcat	80040
aattaaagga	actcctgata	aaaattaatt	ttatcttaca	tgtaaactaa	aatgacttta	·80100
tgaagttaat	tcagaaatac	aatgcagggt	attagtttgc	cacagetgeg	tattcagcct	80160
aatotaatat	tetfattatt	tttaaattct	tettteeet	ttactcatat	ataataata	80220
aacgcaacac			t	ccacccacac	geggaceace	
aaattttaaa	agattaaatg	acaatactct	Lagcageaag	etteeetaag	catataaaca	80280
ttttaatggg	tgatgattca	gaaggtaccc	gaagaatatg	tactgccaga	tatcattcac	80340
ccccatatac	ctacccaaca	gacatcccat	tttgggaccc	togataaato	tataaataaa	80400
gagaagata	agagaaata	gtataagcaa	ataaatttaa	agtataatta	2022222	80460
gagaaagaca	ggagaaagcg	gcacaagcaa	argactings	agicigatig	acagegatty	
aaatcctgtc	tctacctctt	aacagcctca	tgatcctaca	taagttaccc	cgatcctcag	. 80520
		ggttgcgatg				80580
					acaaggaggg	80640
		aataatgacg				80700
gtcggggatt	acggcgactt	cagaatttct	ggtgggcagg	gctcaaaggc	agcaaatcac	80760
actggaagtc	gaggtgaggg	actgcttctg	cacagactgc	tragergaag	agaatgagga	80820
aggettage	2233555555	ggaacttaga	atestases	t	~5aac5a55a	80880
aggerragag	gagatttaga	ggaacttaga	guddudddd	tecaactery	cgggacecge	
tcccgtgcca	gagacattca	ggggatttct	cgcactctcc	cctcccctac	gtccctcccg	80940
ccccatccaa	ctaaccacac	aacacataca	aaataqcccc	tgcgaggttc	tacacactaa	81000
aagggaacag	gagaaggggg	ctgcgctttc	ttactastac	cctatactta	gacccctagt	81060
2025220005	2454455555	tanagataan	acaccates.		9900000990	
agacacagee	actigited	tcagcctgca	gagaaateee	acguagaccg	egeeegggte	81120
cttggcttca	gccaatctcc	ctttggtggg	ggtgggatgc	acgatccaag	gttttattgg	81180
ctacagacag	cagaatataa	tccgccaaga	acacagattg	getecegagg	gcatctcgga	81240
tecetaataa	agcaccactc	agcctcccgg	tacaaaccca	accusacces	dasadssaca	81300
		cgccagctca				81360
getteegtee	agtgcgcctg	gacgcgctgt	ccttaactgg	agaaaggctt	caccttgaaa	81420
tecaggette	atccctaqtt	agcgtgtgac	cttgagcagt	tgactttatt	tttcagtgcc	81480
tagttttcca	gataccagga	ctgactccaa	ggactattac	tcatctccac	gatttaggag	81540
		ttccatgtca				81600
atgccatgct	ctgaaacgaa	ataggcacat	ctttttttt	tttttttta	aggagtette	81660
ctctcgccca	gactagaata	cagtggcgcg	atcttggctc	actocaacct	ccacctccca	81720
						81780
Lyccogagac	tottottgcct	cagcctcctg	accagologg	accacaggea	tgccacgacg	
cccagttaat	ttttgtattt	ttagtagaga	cggggtttcg	ccatcttggc	caggctggtc	81840
taactcctga	cctcaggtga	tctgactgcc	tcaqcctctc	aaagtgttgg	gattacaggc	81900
ataagccact	gcatctggcc	agaaatgaaa	taagtaaatc	ttttaacctq	ctctaacaat	81960
atagtgaaaa	grantatta	ttattagagg	acettaace		thecastest	82020
acagegaaaa	gaccacacca	ttattagagc	aggccaaggg	attigeetat	LLegggttet	
agttatagtc	ttaaacttgg	acattcttgt	agaaagtaaa	aagtttcctc	ttcaaagttc	82080
cccttcttgt	taaagaatac	atcataagtg	ttagaagtaa	tagtttattt	taaaqactaa	82140
ctttcttcaa	acctccttac	tttgtgctaa	taactctttq	ttaagcccta	tectatetaa	82200
atattaasas	taataaaaa	cacgttccag	ttasasasat	2500000	attattaga	82260
aatgttattg	cttccttaaa	cctttcggta	agcaacttcc	tctccttctt	cgttcttcct	82320
tgcacttacc	tatttagaaa	gttttaggct	attaqcaaat	cggctatcag	tttaaqaqtq	82380
tgaggtcccg	ctccagccaa	tggatgcagg	acataggagt	daddacdacc	casatocota	82440
254554	statttaatt	thaatttatt	acacagoago	gaggacgacc	theretake	
		ttcctttgtt				82500
gattgagcac	cctttctgca	gaaagtaaag	attgccttgc	tggagatctt	ttgtctccgt	82560
gctgactttt	cttcqtqqca	ccgattatct	atttctaaca	attttggtat	ttctaacatt	82620
ctgaacaatc	ttggggtagt	tatatattat	agaggtattt	cacastacat	gagatgataa	82680
			9990009000	ccccacccgc	cacacgacaa	
acticating	tttaaaaacc	ccagcgaaca	tttattgagt	tactattacc	tteetgeeet	82740
ccccaacccc	aaccccaggg	agcagttaca	acctcagccq	ctgagcgcac	tegeegggtg	82800
ttaagaagca	ccaaagacag	ggaggcttga	ttgattttoc	tttgggagta	gagggtcaga	82860
agattraced	daaaatddda	tttgagcaag	datdattoad	tagagataga	++++aaa+aa	82920
teeses			gacgacteac	Lygayctage	LLLLaaatat	
tggcgaggct	tttatgttgc	agtcccttac	aaagttgagc	attcgcaggg	actgcactcc	82980
gaaataagcc	cgcttcccct	tttcattcgc	taatgatcca	gggagctgct	ggttccgcat	83040
gcggcaggtt	atacetttte	ctaatcaggg	ttetecated	cctcgaaccc	acadaccata	83100
acadattata	7-3-2-2-2		atacacacac	2200944000	2-422-42-2	83160
gegggttete	ccyayyaayc	ayyyactyyy	gegeagggeg	aagcigeteg	Lyccyyccay	
cgcctgtgag	caaaactcaa	acggaggagc	aggagggtc	gagctggagc	gtggcagggt	83220

-77 of 185-

tgaccctgcc	tttagaagg	gcacaatttg	aagggtacco	aggggccgga	agccggggac	83280
ctaaggcccg	ccccgttcca	gctgctggga	gaactcccac	cccagggagt	tagttttgca	83340
gagactgggt	ctgcagcgct	ccaccggggg	ccqqcqacaq	acqccacaaa	acagctgcag	83400
gaacqqtqqc	: tcgctccagg	cacccagggc	ccqqqaaaqa	aacacaaata	gcacgcgcgg	83460
gtcacgtaga	caatacaaac	atacacccct	gcacccgcgg	gaggggato	gggaaaaggg	83520
acaaaaccaa	cacttaacct	cccataaaac	ctagraraga		aactccgggc	83580
gagagaactta	ttgataatat	aacaactaa	actacctaca	gaaggaccgg	aggcggtggg	83640
gcccactcc	. dassassaa	tecetttte	geegeeeggg	caccccgagg	tggacccgga	83700
actocactoca	ggaagaaggg	taraaaaaaa	cgccagtgca	geggeeeete	tggacccgga	
agteegggee	ggttgttgaa	cgaggggagc	cgggcccccc	cegegecage	cccccgcac	83760
coudeglood	gacccgggcc	cegecatgee	ettetteegg	cggaaaggta	gctgaggggg	83820
					gcctgcgagg	83880
gettteeeea	. aggeggeage	aaggccttca	gegageeteg	acctcggcgc	agatgccccc	83940
tgagtgcctt	gctctgctcc	gggactcttc	tgggagggag	aaggtggcct	tettgegega	84000
ggtcagagga	. gtattgtcgc	gctggttcag	aagcgattgc	taaagcccat	agaagttcct	84060
gcctgtttgg	ttaagaacag	ttettaggtg	ggggttagtt	tttttgtgtt	tctttgagga	84120
ccgtggatca	agatcaagga	aatctcttta	gaaccttatt	atggaagtct	gaagtttcca	84180
aatgttgagg	gttttatgtc	taaaagcaac	acgtgaaaaa	attgttttct	tcacccagtg	84240
ctgtcttcca	atttcctctt	tggggggagg	ggtagttact	gctgttacta	aaataaaatt	84300
acttattgct	aaagttcccc	aacaggaaga	ccactacttt	tgatgacttt	ggcaagtttg	84360
ctaactactg	gaaccctaac	ttacaaacga	actacttaca	tttttgattt	ccagttgtat	84420
					gttgttgcac	84480
ttcattaaaa	atacatatcc	gaagtgagca	agtatgggtc	tgtggacagc	agtgattttt	84540
cctgtcaatt	cctgttgctt	cagataaaat	gtaccagaca	qaqqccqqqc	gcggtggctc	84600
acgcctgtaa	teccageact	ttgggaggct	taacaaataa	atcacctgag	atcgggagtt	84660
caaqaccaqc	ctgaccaaca	tggagaaacc	ccatatctac	taaaaataca	aaattagcca	84720
gagtaataac	gcatgcctgt	aatgccagct	acttgggagg	ctgaagcagg	agaatcgctt	84780
gaacctggga	ggcggaggtt	gcagtgagcc	gagataggag	cattgcactc	cagectggge	84840
aaaaagaggg	aaactccgtc	tcaaaaaaaa	agtaccagac	agaaatgggt	trtattttct	84900
ttttttattt	tgagacggag	thtcactett	attacccaaa	ctcgagtgca	atogoogat	84960
ctcagtctcg	gctcactgca	acctctctct	cccaggttta	atcoattctc	ctacctcacc	85020
ctcccaagta	gctgggatta	cccatacccc	accataccca	actgattett	ctattttac	85080
	gcttcaccat					85140
	tcccaaagtg					85200
gggttttgg	aaaagcacta	aacaaaatco	agguargagu	categoggee	agecagaaat	85260
aactotaaca	ggggcagacc	anttaaccta	attttatata	ttatatata	terestere	•
atcattccca	aaggcagacc	gecaacca	taratttara	tactgccage	taggaarrag	85320
acgactetta	aaggcccatt	gaactctgaa	cyactitaaa	Lacticitic	Laagtyygta	85380
catggittig	gtaactgatg	ctaggigatg	aatgcatgaa	agegeetaat	gaatgaaacc	.85440
ggtaaaatag	taggaggaag	teetattggt	aaggcagggg	tatacctaat	agetetetaa	85500
tttattggta	ttgaagtggt	taacttttgt	ttttttaagg	ggggaaaaca	ttctaagaat	85560
aatgaggcaa	actgcatatt	gcacaagaga	ctgttgtctc	tattcaacaa	ataccttttg	85620
agrgreeaga	gtctgccagg	tgctgtgcta	ggccctcacg	attgagtagt	gaaccagaga	85680
argreectge	acccatggag	cttattgtct	actggggtag	acagataata	aataagcaaa	85740
caaatcttct	ctcttctccc	tttcgctcca	tgtaagtgtg	tgtgtatagg	tgtatactta	85800
caagttgagt	aaagtgttat	gaaagattaa	gaggagaaat	gcattttggt	tagatgttag	85860
aggactcagc	aggtgacctt	gaaacttaga	gctgaaggat	cagtaggagg	taactagaga	85920
ggccagggaa	tcgcatgttc	aaaggccagg	aggcaagaaa	gagcatggtg	cccttcaaga	85980
gaggaaagaa	ggctactgtg	actggagcat	agatgtaggc	aagtgttggg	tgattgagag	86040
ctctacgggc	catggttagg	ttttattcct	aatgccgaga	tgccaaacat	ggtggttcat	86100
atctgtaatc	ccagtatttt	aggaggccga	ggcaggaata	tagcttgaac	ccaggagttc	86160
aagaccagcc	tgagcaacat	gagacctgta	caaaacattt	aaaaaattgc	tgggtatgat	86220
ggtgcacacc	tgtggtccca	gctactcagg	aggctgaggc	agaaggatca	cttgagccta	86280
ggaggtggag	gctacaatga	gccatatttg	aqtcactaca	ctccaqcctq	gatgacaaag	86340
	tgtcaaacaa					86400
	ttatatctta					86460
aagggctttg	ggaggctgag	acaggaggat	cacctgaggc	cagttcgaga	tcaacctgta	86520
cagcatagag	agactccatc	tctacaaaaa	gaaaaaataa	atagetgggt	attataaatt	86580
attcaggagg	ctgaagcaga	aagatcactt	gadeceadda	atttaagggt	gcogcagct	86640
atgateceae	cactgcaaca	cagtgagatc	ttatctcasa	Secondayact	aatcattcta	86700
gatactttt	ggaggctgga	tataataaaa	atagaaggta	cacatcctc	tattacccat	86760
togattcace	ctttaaatac	catcaataca	ttgagtggg	gagacggccc	actacettee	86820
atcetteece	ctgaatccag	actootatatat	coaacttta	aductate	tatetetae	
tgaccaatat	agaggtgtcc	actottttoo	cttccctccc	gettagettg	ngaagaatte	86880
tettereses	cacatagagt	agretage	tangantage	ccacactgga	ayaayaattg	86940
gaycca	cacacayayı	acaccaacyc	Laacaatage	ayaryageta	aaaaadatC	87000

-78 of 185-

gcaaaactta	. taatgtttta	agaaagttta	cgaatttgtg	ttgggcacat	tcagagccat	87060
cctgggccgc	: gggatggaca	. agcttaatco	: agtagatacc	ttcaacttac	aatatctaaa	87120
attttatgcc	: agatttagtc	: attttaaacc	: tgctcatcag	tttttctcaa	gaagtagtat	87180
tttggctttt	tttctttct	: tttttttgag	, atggagtttc	gctcttatcg	ttcaaqctqq	87240
agtgcagtgg	rcggatcttgg	r ctcactgcaa	cctccgcctc	ctgggttcaa	gtgattctcc	87300
tgcctcagcc	tcgcaagtag	ctggaattac	: aggcatgcgc	caccatgacc	agctaatttt	87360
tggagacagg	gtttcaccat	gttggtcagg	r ctggttttgt	actcctgacc	tcaggtgatc	87420
tgcctgcctc	ggcctcccaa	aggctgggat	tacaggcatg	agccaccgct	cccggctgca	87480
		cagcccaaaa				87540
tcctactcta	tatctgatco	atcagcaaat	ctgttaggtc	tacctcacac	atatcgaaat	87600
		gtgacaatta				87660
		tcctctaagg				87720
aagagggagc	tggttttata	. aagattgagg	aggcagcatt	attttgccat	aggcttccat	87780
ttggtttcca	ttccattctt	gatacttatg	gtatatattc	aaaacaaatg	cacagaaaca	87840
gacccaggta	tattgggaat	ttcggatata	. gagttcctag	ttgggaaaag	atagactgat	87900
ctgtaaatga	tgctagttat	ccatcatctg	gcaaaaaata	atttcctgcc	tcctctcata	87960
tatctcagat	caacagactt	tttctgttaa	. gggccaaatc	ataaatattt	taggctttcc	88020
agaccatatg	gtttctgtca	cactctcctt	tatccttgaa	gccatagaca	atatgtaaac	88080
aaatgggcat	ggctgtgcta	cgataaaact	ttacttacaa	aaactggtag	tgggccagtt	88140
taggcatggc	cagcactttg	ggaggctaag	gcagatggat	cacttggggt	caggagtttg	88200
		gtgaaaccct				88260
gcatggtggt	gggtgtctat	aattccagct	actctggagg	ctaagacaca	agaatcactt	88320
gaacccagga	ggcagaggtt	gcagtgagct	gagatagcac	cactgcactc	cagccagggt	88380
gacggagtct	taaagcaaaa	caaaacaaaa	ggtagtgggt	tgtatttggc	ccatgggctg	88440
tagtttgcca	atccctgatg	cagaaacaaa	ttccaggtaa	ataagagcct	ggaatgttaa	88500
aaaaacaaaa	cttgaagtca	tgtagaagaa	caggtagggg	gaacaatcct	gatctcagga	88560
taggaaggga	tattgcttaa	aataagacac	aggaaaatat	aatccatgtt	gtgtaaattt	88620
gactacgtta	aaacttaaaa	ctttcgccaa	gcgcggtggc	tcacgcctgt	aataccagta	88680
ctttgggagg	ccgaggtgag	cagatcacca	ggtcaggaga	ttgagaccat	cctggctaac	88740
acggtgaaac	cccgtctcta	ctaaaaatac	aaaacattag	ccgggcgtgg	tggcgggcgc	88800
ctgtagtccc	agctacttgg	gaggctgagg	caggagaatg	gcctgaaccc	gggaggcgaa	88860.
gcttgcagtg	agctgagatc	gcgccactgc	actccagcct	gggcgacaga	gtgagattcc	88920
gtctcaaaaa	aacaaaacaa	aacaaagcaa	aaaacctaaa	actttcatac	aataaagtat	88980
acctaagata	cttctagaag	agaagattta	catccaggac	gtgtatggaa	tttctgcaag	89040
caataagtaa	aagacaaggg	acatgaagag	gcagttcaca	aaagaggaag	ccaaaatgac	89100
caataaacat	gaaaggatgt	ttaacctcaa	aggaaacaag	gaaatgaatt	aaaaacatca	89160
acetacetet	atgagtggat	aagttggcaa	aaccaaaaac	accaaggatg	agaatatgaa	89220
gtattttt	tattttt	ggaatggtac	agtcacttte	actaaaaacg	cacataattt	89280
tataggatas	cattlitti	agacagteta	cgcccag	gccagaacgc	ageggeaega	89340
anathaataa	ccacaatete	tgcctcctgg	grecaageaa	tteteetgee	teageeteet	89400
agragergg	ttacastatt	acatgccaca	acgeeeggtt	aagttttgta	tttttagtag	89460
ttaaaaaaa	actoractes	ggccaggctg	gccccgaact	cctgacctca	ggtgagctgc	89520
antttattaa	gergggarra	gaggcgtgag	ccaatgetee	tggctgaaaa	aaatgcacat	89580
gastagasag	ccagcaactc	catgtctaga	ggcttateet	agagaaatte	Ligettatat	89640
taaagtaaat	attasttasa	gaatgttcac	cagilyaaly	cttaagtgaa	aactaggaaa	89700
actasastas	ataaactaca	aggaaaatga	tanataan	atttataaaa	caaccaagta	89760
getaaaatga	tanataga	gctgcgtgaa tcagatatgt	ryaactagaa	ctggttcaat	agccatgcca	89820
ttttttt	gaatacagg	ctcactctgt	tagagegee	accegegeaa	ccaattett	89880
cacctcactc	caacctccac	ctcctgggtt	rgeecagget	ggagtgcagt	ggcgcgatet	89940
tagttgggat	tagagggatg	caccaccatg	adagigatio	tttaatatt	thachana	90000
cagooggac	ccatattacc	caccaccacg	ttgaagttgat	gagatasagt	attageggeea	90060
acttggcctc	ccaegetgge	caggctggtc aggattacag	acatasacas	gaccccaage	gerecaceca	90120
gattttaaa	catatacaaa	ataatgccat	taaaaaaaa	agagatagat	Ctatetgegt	90180 90240
acacatttaa	ctagatataa	tggctcacac	ctataataa	acacatacat	gracataras	
caddaddatc	acttgaggg	aggtgtacaa	cactaccet~	ageacettegg	gaggetgagg	90300
teteasease	adaaaddata	attaggtatg	gactageetg	ggcgagacag	Caayacccca	90360
attcaaatat	tatcaccce	ctgcactcta	grayuaryag	daaadcaactt	gageeeagga	90420
aaaaaataa	aataaaaaat	atttgtatgt	catcatacta	222222	Catagasass	90480
aaatgtcttt	atttatttat	ttatttttt	tttttt	aaaaaacyta	ctatatasaa	90540
cagactagaa	tacagtooto	taatctcage	tracrosse	ctagageeetee	Carattana	90600
cgattcffcf	acet cáceet	tctaagtagc	toogactaca	cataccaca	-yggrccaag	90660 90720
gctaattctt	atattttcac	tagagacagg	atttcaccat	attacasaca	Chart char	90720
	J-Jucceug		Juctaccac	guugguaagg	ceggeologa	90/60

-79 of 185-

actictgaco	: ttaagtgagc	: cacccgcctt	ggcctcccaa	agtcctggga	ttacaggtgt	90840
gagccactgo	gcttggccac	gaaatatcta	atttagtaag	tatttatato	tgggaaagga	90900
agggtcaggt	ggtgattcat	aggaactcta	aagtctatgt	ataatactta	addddacada	90960
aggaaataaa	gcaaaatgct	gatatttgat	tattaaatta	totatatott	acaactataa	91020
cataggagat	ctgattgata	gtaggagat	attttaaat	agtasasata	gaaccgtggt	91080
gatttattt	ggcagtagaa	tcagttggtc	atactttcta	tataaaagag	aataaagag.	91140
ccatottaao	ggtagtagaa	ggaattttgg	teteret	cgcggaaggc	aacaaacaya	
catragraaa	gatgatttt	ggaatttagg	acceptage	gggtggatga	cagugucatt	91200
ttagagggaa	gatgaagact	gaggtaggaa	caggcccggg	agaagatgac	atgitccctt	91260
anagataagt	ggaartatgg	aagatggcag	gtaggtggtt	agctatatga	atttgagata	91320
ttaagatttag	gatggagata	Ladatttagg	agtaacagcg	tatetatggt	attgtaagcc	91380
ccaagaacgg	graggarcag	ccaggaaata	cagatgtata	tgcagaagag	aggagtcaag	91440
gaagecaaga	caagttaatg	tttaaagtga	gtgatgtagt	ccatgggcag	atgctgctga	91500
gagggctgca	aacaccagtg	accctacaac	atttttaaat	gtcgtcttcc	tgacagcagt	91560
gatcagtacc	tgcaacgatc	ttatttattt	ttttcatgtt	agtctccaca	cacttgaatg	91620
tagactttt	gaaggcaaaa	tcattgcctt	ttctgagctg	ggagcatgtc	tggcacatac'	91680
caagcactca	acagttgatg	tattgacttc	atccagatac	tctgagggcg	agttatttcc	91740
tgctactagc	ctttcacctt	tcaatgttta	agagcacaaa	tacagagatg	ggcacgtttt	91800
ggcatttctt	attttgataa	ccttttcctg	gtaagatttt	ttaatgttga	aaaaaaaaa	91860
caagaaaaga	gggttaaaaa	tagtcttatg	tcagatcctg	tgatagaatt	cacacttggc	91920
ttaagctgct	gggcaccttc	ctatcttgga	tgtcatatta	gcttatctac	agcagaattt	91980
ttactgtttt	atgtagtaag	gaagcaatta	tatgattatt	ttacagacaa	attattcttt	92040
atcttttatt	tttttagacg	gagtctctct	ttatctccca	gactagaata	cagtataga	92100
atctcggctc	actgcaacct	ccgcctcctg	ggttcaagca	attetetece	tcagcctccc	92160
aagtagctgg	gctfacaggt	gtccgccacc	acacccaget	cattotttto	tatttttagt	92220
agagatgggg	tttcaccato	ttggccaggc	tagtettaag	ctactgacct	caggtgatcc	92280
acccacctta	gcatcccaaa	gtgctggaat	tacaggcgtg	agccaccgtg	cctggcccag	92340
acaaattatt	atactctgag	tgttagaggc	ttaggatgtt	treacttest	actatagaaa	92400
gaataagtaa	taagatatga	tacacaacca	aagaggtttc	ttcactatac	ttctactacc	92460
		ggtaataata				92520
ctagttactc	ttctaaccc	cttacaggta	tatattttt	ttcatcaata	atcatatasa	92580
gtagttttta	ttattgacct	aattttataa	atgaagaaaa	ttaaccaaca	gagaagtaag	92640
taacttotco	aagatgacet	ggcttataag	taataaaaa	agaccca	gagaagtaag	
atasetsest	tatatataa	taagaggtt	cggcagagcc	agaatttgat	tettagatgtt	92700
tarattaatt	agacacacac	taagcaggtt	caacccccc	gaetggatge	tgttccaagg	92760
ccattettet	agagaageee	ttgctgacaa	toaccecee	gradeereer	ccaaggetgt	92820
ttatagatta	agaactttga	atactcatct	cagaacaaag	ctggtctaat	ttttacagtg	92880
ccacagaacy	gattetetgat	tgcaaaagtt	ggtcataatt	accettetat	gttctagtga	92940
aaggcaaaga	acaagagaag	acctcagatg	tgaagtccat	taaaggtaag	ttctgccctt	93000
ggeageeeae	tgcaccaaaa	agtgatgtgc	cttgcatttg	tgagttett	aatcctgtta	93060
tactetetet	cccggcacta	atcatttctg	ccttatttta	taattactta	tgattttgat	93120
ttatttccct	ctttaacctg	tataatgctt	taacatctag	catataataa	gtaggctttt	93180
	ttttttgga	gacggagtct	tgctctgtta	cccaggctgg	agtgcagtgg	93240
cgcgatcttg	gctcactgca	agctctgtct	cccgggttca	caccattctc	ctgcctcagc	93300
ctccccagca	gctgggacta	caggtgcacg	gcgccacgcc	tggctaattt	tttgtatttt	93360
ttagtagaga	cagagtttca	ccatgttagc	cagtatggtc	tcgatctcct	gaccttgtga	93420
tacacacaca	teggeetece	aaagtgctgg	gattacaagc	gtgagccacc	gcacccggcc	93480
gtaagtaggc	tttttttacc	ttaattttat	ttttttgaga	tggagtcttg	ctcttatccc	93540
caggctggag	tgcagtggtg	ccatctcggc	tcactgcagc	atccacctcc	cgggttcaag	93600
cgattctcct	gcctcagcct	cccgagtagc	tgggattaca	ggtggccgcc	accatgccca	93660
gctaattttt	gtatttttag	tagagacagg	gtttcaccgt	gttggccagg	ccaqtctcaa	93720
actcctgacc	tcaagtgatc	cactcgcctt	ggcctcccaa	agtcctggga	ttacaggcgt	93780
gagccaccat	gcctggccat	aagtaggctt	ttactgagcc	ttgtgtgtat	tggctatcct	93840
agtgattaca	gtgaaccagt	gcccttctta	ttaatcacac	atttaattqt	tccctaaaag	93900
tgattagttc	actttattta	tttagtaaga	caaaaaatga	agaatactct	taactgagga	93960
gtctgttaac	tgtaggaaag	cactgacact	tataaggett	agttttctgt	catttatcca	94020
gaagtatggt	tgattacagt	ttttactttt	ttatttgaat	gaacaacctt	aatttaaaat	94080
atattttqtt	tatttttttt	tgggatcgat	acattotect	totttataga	ttagagcatg	94140
ctttttaaag	atoctotatt	actcactgat	tttatttatc	cagtotacao	agattgaagt	94200
gggaaaatta	taatggaaat	tgtttccata	gtcattacat	attaatttca	tcaatttatt	94260
tccataaaat	ctotagatto	ctacttattt	agatttttcc	ttcaaatatt	tttatattat	94320
attectteca	ctgagtattt	attctatatg	ctcaatttcc	tagagaga	cactasttat	
aacttacce=	acttotabas	ttagggaaaa	aagtaageta	cyyayaayaa	bactaattat backbeach	94380
atttettate	taaarccart	tagattccac	adycadygca	actacagee	thereeses	94440
cttoattoacg	actostasso	gcttaaagcc	attatere	accyccect	LLGagcaaaa	94500
garegge	agigalaaag	guitadague	cccccaage	ayayacctgt	aaagactaga	94560

-80 of 185-

tetgaetgta gtagaaggaa ggaaettaga tgttteagge agtgagaaca ceagtettee 94620 actctaaact ttgccactaa cagtatgacc ttgggaagtt gtaactttct tcagattctt 94680 catttgttga atggggggat tggcctaget aatttctaaa tctctactgg gctaaaaaat 94740 tetgtgetta tactetgatt atgaagtaca taatetgtge ttaacattea etgaettate 94800 cttaggataa tacagaagca gtacaagaaa cagcccctca agatgtttgc agtctggtta 94860 gaaagacaaa cttatacaca gaacagtagc aaatagacca aaataataat agctgccatt 94920 tatagaacac ttcttctgtt ctgggcatta gacaaaaact gactataacg gtgaacaaaa 94980 aagacttagg teetgeeete attgaaetta cagattagta ggggagagga acattaatca 95040 agtaattcca cagatggctt agcctagatt ggtagtgatg gaagtaaaga gatgtgaacg 95100 gacttgaaaa aaaattcgga ggcaaaatgg atagaagttt attattgatt aaatatgagg 95160⁻ tgtgagagag agggatattt aagattgata cctaccttct ggcttgccta acagaaccaa aacaggaaat tatatgttca gttttgttat gttgggtggg aggtgctttt gagtcattca 95220 95280 tttatatatg ttatatatgt tattttatat gcatagtaat titaaggtct gagttttaaa 95340 ccaaaggtta gagagtgatt ttttagagtc tagcaaacct aagttgaaat cctgcctgtt 95400 gaaatggctg tttactagct cattaaccta gggcaaagta ttcaacttgt tttcattttt 95460 gtcttcatct ctaaaatgag gaaaatatgg tcttacaaga ttgtcctgag agatagatga 95520 aataatatcc aaaaaaaaaa aaggtacata gagaaactcg tatagtgcct ggtatatagt aggtcctcca ttggtagcta tcattatcta gttttaacat agccttcagt ttgttgaatt 95580 95640 agtcaaactg agtgaagcac tgcaaggaat tcagaggaat ttgagatcaa caaatgattt 95700 ctgaagttta gggaagactt catggcaatg acacttacct tgtataaaag ttgaagaata 95760 agaaagattt gaatgagaga ttettetet tetecetace ageceagett ettatttgag 95820 gatatattgg gcaaaggggc cttcagacaa gtagagggag atttttacag aaagattgagatgaaggtat agaaggctgt aaagaccaga aaagagaatt gagacagagg aagcaggaag 95880 95940 ccactgtagg tttttgagca agatattgat gctgtaagta tggtgtttat gaaaggttag 96000 totggaagag atttgcagga tggagacccc ggaagttttt ttgttataat acagaaagac ttgcactgag ggtgaggtgt taaaaataaa caggtaagta aatgtttaaa catottgaag 96060 96120 gaaaagtcaa caaatcttgg caagtaaaca gataacagtg aaaaagaatg ggaccaagat 96180 tttgagtttt ggagactggt ggattgaaca gacagggaaa ttgagaggag aatcagatga tgatgtttta agttgatatt tagacagatt gtgcttgaga tggtaaagtc aatgtgggtg 96240 96300 ggaatgetta gtagegagta atcagtgata caagaccaaa geecaggtea aagacaagte 96360 acagatacag atcagggctt tttcatctgc tccacagagg tgtaccctag gagctgttgc aaacagtcca tgtggagggt gtgagtaaga tgtttccctt gaatttgcca gaattacttt 96420 96480 tttgttgttg ttgttgtttt ttctgagaca gattctcgct ctgttgccca ggctggaggg 96540 cagtggcgag atcgcgcagc tcactgcaac ctctgcctct cgggttcgag tgattctcct 96600 geeteageet eccaagtage tgggattaca ggettgtgee accaageeea getaatttet 96660 tttgtatttt tagtagagat ggggtttcac catgttggcc agactggtct cgaactcctg 96720 gestegtgat etgeetgeet cagesteeaa aagttetggg attacaggeg tgaaccastg 96780 cacceggice etigitaagt ttatttiggt gggaagcaaa ggaggtitea gettttaaaa 96840 agtttgaaaa ttattgctct ggtaataatt aaagatttga gagtaaatat gctttctagc 96900 agaaagaata aaagaagaac agatagcete aagaagggga gecaaagaag caggetatat 96960 ctgacacact gggtgttgat aaatgggtat taaaagaatg agagcaatga gcagatagaa 97020 gaggaaatta ggagagtata ataccatgga gaccaagaaa gatagactat caggaaggag 97080 tggtaaaaat aagttactag ttctaagaga gatgttaaga gggaccgggg aaagccttgt 97140 acaaatgagt tagtagcatt ttacattata tacatctaat taagaaacaa tgcgagagtc 97200 tcaccattcc tatagactct tacttgtact tgtctgaaca cgaaaactgg cttttgttta 97260 taaataagct aaaaattatt ttgctccaat ttctcatgaa aataaaaata aaccttcttt 97320 taacattgaa aaaatagttt gaagacagtc actcttcatt ttgtaattcc cacaactatt 97380 attgaatgac tgaaattatc tttattctga agccaaaggg gtgatactga tatttcttca gactactaaa aatatattt atgaattttt agtgtgcttt atctttttt gttttttt 97440 97500 ttgagatgga gtttcactcc cgttgctcag gctggagggc agtggtgcaa tctcagctca 97560 etgeaacett egeeteecag atteaageaa tteteetgee teggteteee aagtagetgg 97620 gattacagge acctgcccc acacccaget aattttttgt atttttagta gagacagggt 97680 ttcaccatgt tggtcaggct ggtcttgaac tcctgacctc aggtgatcca cccaccttgg cctcccaaag tactgcgatt gcaggcatga gccaccatgc ctggcctgag gaatatttt ctaggttccc cccacccaa gcattattc tgcaatttta gttttgttcc taaagcaagc 97740 97800 97860 aaggtttaag gatttaaaaa taatccgtat titagaatgc ittctggctt tgttacttit 97920 tatccacagt agaagttotc agagaatgat ctccctcttt taatttaact tittggcaca 97980 gtattttgag aattataaat aatattagaa tgttttctgg ctgggtgtgg tggctcatgc 98040 ctgtaatcct ggctacttgg gaggctgagg caggagaatc acttgaacat gggaggcaga ggttgcagtg agccgaggtc atgccactgc actccagcct gggtgacaga gcaagactct 98100 98160 gtctgggaaa aaaaaaaaaa aaaaaaagag tqttttcttt cctattttcc accacttqat 98220 taagttactt ttcctcttaa gtattttttg ctgagtatgc tgacttaaga gtaatgttac 98280 aaaatttaat ttttaaagtt ctctgaaagc ccctttatga gagttttagg ctatcaaatt 98340

-81 of 185-

gtgtttaatt	cttaacaatt	ttttqaaaaa	ttatagette	aatatccqta	cattccccac	98400
	taaaaatcat					98460
atgccatttc	tgccaacatg	gactcctttt	caagtagcag	gacaqccaca	cttaagaagc	98520
	catggaggcc					98580
	ttagaaggat					98640
ctatataatt	ggaaagtgct	ttqqaaaaaa	tqtatttaaa	ataacaqcta	caaqtataat	987.00
	gttgtgttcc					98760
gcatttccag	aagaaatata	tctgatcact	aaatataaat	atatgaaaaa	gatgtctcac	98820
	agggaagtgc					98880
2000000000	22222222	atticaatet			acacatasta	
	aagtttgaca					98940
tttagtgata	atataatctg	gtgaagactc	tttggaaagc	aatttqqaaa	tcagtataaa	99000
	catttaggcc					99060
	tgtatgtgtg					99120
tatgtatgta	tgtatgttga	aggctattca	ttatagtatt	gtttgtgata	gcaaaaaatt	99180
	tataaatatc					99240
	tatagccatt					99300
tgttgcccag	gctggagtgc	agtggtatga	tcatggttca	ctgcagcctt	cacctcctgg	99360
gcacaagcca	ttetetegee	tcagcctcca	gagttactag	gactgcaggc	atgtgtcacc	99420
	aatttttaa					99480
gtctcaaact	cctggcctca	agcaattctc	ccacacaggc	ctcccaaagt	gctgggatta	99540
	ccaccacacc					99600
	aaggcatgtt					99660
ccqttatatt	aaaataagtt	cttccaaaac	aaaaacatat	gcaggagacc	tttattttgt	99720
	tacccaaatt					99780
	ccatgaacca					99840
ctctactttt	gtgtatattc	aaaccagagt	gtcaatgtgt	ttgtggggca	cacttagcaa	99900
	cagacaaaat					99960
cactcataaa	ttgctgatga	gaatttaaaa	LggLgcagaL	gccccggaaa	acaggcagtt	100020
tctttcttc	tttttttt	tctttttgag	acagggtctc	actctgttgc	gcaggctgga	100080
	gtgattacaa					100140
						100200
	ctgagtagct					
	tttttttt					100260
aactcctgga	atcaagcgat	ccacttqcqt	aggeeteeca	aagtgctggg	attacqqqcq	100320
	tgcctggcct					100380
tgtagacgga	gtctcacagg	erggagrgea	gtggcccaat	ttttggetça	etgeaacete	100440
cqcctcccaq	gttcaagcta	ttctcctgcc	tcaqcctcct	gagtagetgg	gatgacaggt	100500
	atgectigget					100560
	gttttgaact					100620
qctqqqatta	caggcatgag	ccqtcatccc	taactaataa	tttcttatqa	cqtqaaacat	100680
	tatgacctag					100740
ccttccaata	aaaacctgtg	cacaaatgtt	catageaget	taatattgaa	aaactggatg	100800
ttcttcagca	ggtgaatgaa	ctggttcatt	cataccatgg	aataccattc	agcaataaaa	100860
	tgttgataca					100920
	agtccctaaa					100980
aatagagaaa	ttaagagaaa	tgaaaagatt	agtgtttgcc	agatgttaga	gacagggagg	101040
tgagagggt	aagtgggtgt	agttataaaa	gtgcaacatg	agggatettt	gtgatgttga	101100
						101160
	tggcagtgga					
acaagaatga	gtatagataa	aactggggaa	atctgaacaa	gttagagtgt	tgtatcactg	101220
tcagtatctt	agagtgatat	totactatao	ctttgcaaga	tottaccato	ggagaaacta	101280
	gggatctcta					101340
cccaggccgg	tcttgaactc	ctgggctcta	gtgatccgcc	tgccccagcc	tcctaaagta	101400
	aggcgtgagc					101460
	agcattatct					101520
atcagaattt	cctcaagttt	gtgatgttga	caaagatgaa	ctagttgaca	ctgacagtaa	101580
	gaaqacacqa					101640
			_	_		
	tgacaaattg					101700
tgatcatgct	atgaaagcca	atttttaaaa	aaattttttg	tctttcctaa	caattagctt	101760
	tttaaattta					101820
						101880
	ggtacgatct					
gttcataaca	tctttgtaga	tatatccaca	attttccctc	aggataagtq	cctacaagtg	101940
gaattactoo	actgaaaata	atgcagtttg	ctaagacttt	gctatctgtf	cctgaatgcf	102000
						102060
	ggttttgcca					
tttcctgtgc	ccttgttact	gcttaataat	ttttgaaaaa	aatctaattt	gacagacaaa	102120

-82 of 185-

aatgcatttt atgttaattt gcttttctgg gatttttaat gaggttgagt atagttttta 102180 atattttat tggccccttt ggaactagta tcataagttt tttttcttaa gaatttatgt 102240 agtetggget gggegeagtg geteaegeet geaateeeag eactttggga ggeegaggtg 102300 ggtggattgc cgaaggtcag gagtttgaga ccatcctgac caacatggtg aaaccgaatc tctactaaaa gtacaaaaac tagctcagcg tggtggcggg tgcctgtaat cccagctact taggaggctg agtcaagaga atcgcttgaa cccgggaggt ggaggttggt tgcattgagc 102360 102420 102480 102540 aaaaaaaaa aaaaaagaat ttacatggtc tgaattgcca ttaaaagaga tatgagaatt attgagtaac aaataacttt ttaataattt aggcaagttt tggacgattg tactttgttt 102600 102660 agaaaccaaa agcatagtat ttgtagtttt tttatttact ttagttgcta ggaagtaaac 102720 titattcaag gictctggta ccagtigtig ctaaaagtga tigactaatc igicaatctg aaattattig tigctgaact gctaatcti tigctictat ctititaggca gatctigtci 102780 102840 ggactaccag actcaagaga ccaaatcaag cctttctaag acccttgaac aagtcttgca 102900 cgacactatt gtcctccctt acttcattca attcatggaa cttcggcgaa tggagcattt ggtgaaattt tggttagagg ctgaaagttt tcattcaaca acttggtcgc gaataagagc 102960 103020 acacagteta aacacagtga agcagagete actggetgag cetgtetete catetaaaaa 103080 gcatgaaact acagcgtctt tittaactga ttetettgat aagagattgg aggattetgg 103140 ctcagcacag ttgtttatga ctcattcaga aggaattgac ctgaataata gaactaacag 103200 cactcagaat cacttgctgc tttcccagga atgtgacagt gcccattctc tccgtcttga 103260 aatggccaga gcaggaactc accaagtttc catggaaacc caagaatett cetetacact 103320 tacagtagcc agtagaaata gtcccgcttc tccactaaaa gaattgtcag gaaaactaat gaaaagtgag tatgtgattt tcttgtgtgt acatatgtgt ctcactttct ttttttaatt 103380 103440 tactaagcag aacttcagat gaggaataaa atgattggaa tattttttt ctcctctaac 103500 tacttgtaaa tttgggagaa tttggagagt gtagtagagt cagatcagtg tatggaaaag 103560 gagcaggagt gactggacct tctaagaagt gtgttatcag aattagtaaa tgaagggtca aatgtcctac ttttcccctc cactgattt gacatcaaac cattatccac atagccttat 103620 103680 tteeteeete ggtettaatt ttattaatat tttactgeae tttgeagata aaatttttaa 103740 aaaattttta aaaattgcca ataagtgaca tttattaagt tcagtgctta gtgtatattt 103800 ggattttatt tattagtcac aagacctttg tgcaggtagt aggcatgatt atctttttt 103860 ttttgagatg gagtettget etgtegeeca ggetggagtg caatggegeg gteteggete 103920 actgcaacct cogggttcat gccattctcc tgcctcagcc tcccaaatag ctgggactac aggcgcctgc caccacaccc ggctaatttt tttgtatttt tagtagagac ggggtttcac 103980 104040 catgitegec aggatggiet egateteetg actitigigat eegeetgeet eggeeteeca 104100 aagtgetggg attacaggca tgagecaccg egeceggact gattatetta tttacacatg 104160 agaaaaccag ggcttagaaa ggttaggtaa cttcctctag gttgtacagt aaatgtggac 104220 ctagaagcat titgacaaga gcacctgttt tittttette tetattagit tagaaattat atactettaa ttatcacctg ggattttgat tagacageet teatgttett titeatetta 104280 104340 aatgttettt gtgtettaaa gggetaagtg atttetteag atetttagt teacteatte 104400 tcagtgaact aaaatgaggt ctaatctgct actgaatcaa gttttcagca tgttatttcc ttcctccctc cctccctcct tccttccctc aaccaggctc ccgaggagct gggattacag 104460 104520 gcgcccgcca ccactcctgg ctaattttta tattttagta gagacggggt ttcaccatgt 104580 tggtcaggct gatcttgaac tcctgacctc aagtgaccca cctgcctcgg cctcccaaag tgctgggatt acaggcatga atcaccacac ctgacggcat gttattttca tcgcaaagtt 104640 104700 actgtaaget gggagaagtg geacacaett gtacteecag etacteagga agettaaggt 104760 gagaagattg cttgagccca ggagttttga gaccaacctg ggcaacacag caagacccca gctcaaacaa agaaaaaaag ttattgaatt ttttatttct atggatcatt ttttgtagtt 104820 104880 tettatteet tteaccette atteceaett ttgateceat ettttattta tttagtttta 104940 ttaaatgtat atttgtctga taattctgct atctacagtt ttttgtggac ctgactcagc 105000 atttctttgt ttcttcggat tcagactgtt ggtggcttgt gattttagtg atttttggcc 105060 gtgaacatgt ttcttggact tttgtctgtg ggaattctct gtgtactctg tataaattaa 105120 gttacttcag gtgttttgca ttttcttttg ccatgcacct ggggcctggg tcactaccct tctggtacca cttaaaactg aatttttgtc ttgggtgctc gtactgatcc tgtatgagta 105180 105240 caggittata citacigiag aaataiggig titigattatig gggtatigic ccagaiggig ciggagiatt aataigcici cigitaaaci taaigigiig tcccigiaaa actccaaaat tcigaattcc agaatactac iggccccaaa igittaagat aagggcacig ccigiatiig 105300 105360 105420 105480 tttctgcctc ccactatttt ccttagttta acacaaactc acctttttaa aaaacatttt gagagaatto agtattggga agagtttota acctgtttot ggaaatggaa gtocaaagto tgtttotgta attgttttt ttttgagatg gagtotoact otgtoacoca ggotggagtg 105540 105600 caatgacgta ctctcagctc actgcaacct ccacctcccg ggttcaagcg attctcttgc 105660 ctcagccccc tgagtagctg ggattacagg tgcccaccac catgcctggc tgatttttgt atttttagaa gagatggggt ttcgccatgt tggccaggct ggtcttgaac tcctgacttt 105720 105780 gtgatctgcc cacctcagcc tcccaaagtg ctaggattat gtttctgtaa ttgtaataca tttattgttt ttagaaactg tctttgcttt agtggtaatt ttcaataaaa atagaaatag 105840 105900

-83 of 185-

cagtggagtt attaaaagag cattagttac atttttccct ttttcattat cttcaaatat 105960 tatatatagt aagtttgacc tttttaaaat gtatacttgt atcagtttta acacatacat 106020 agattcctgt aactgtcacc actataaggg taaagaacag ttagttcctt cacctttgaa 106080 gtcaagecce acctetatee caacactigg caacegetga tetiteteeg tetcaatage 106140 tttgcctttt ctctttttt ttcttatttt tttttttgag acagcgtctt gctctgtcgc 106200 ccgagctgga gtgcagtgag gcaatctcgg ctcactgcaa cctccgcctc ctgggttcaa 106260 gcagttetee tgeettagee teeetagtag etgggattat aggeaegeae caccaeaece 106320 ggctgatttt titgtatitt tagtagaaat ggggtttcac catgttggcc aggctggtct 106380 caaactettg accteaagtg atceacetge eteggeetee caaagtgetg ggattacagg egtgageeae tgtgeecaat caggaetttt ttttttaaa tttacattea acttgteatt 106440 106500 tttttcttgt atggattgtg ccttcagagt cacacctaag agccctttgc ctaagcaaag gtcatgaaga ttttctcata tgtttccttt taaaagtatt gtggttggcc aggtgccatg 106560 106620 gettatgeet gtaateteag eactttgaga agetgaggtg ggeagattae gaggteagga gategagaee ateetggeta atgeggtgaa acceeatete taetaaaaat acaaaaaaa 106680 106740 aaaaaaatta geegggegtg gtggegggea cetgtagtee cagetaettg agaggttgag 106800 gcaggagaat agtgtgaacc cgggaggtgg agcttgcagt gagccgagat cgcgccactg 106860 106920 106980 ttacgtcaga tttttgttt tttgtttatt tttacatatg gatgtctagt tgttctaata ccatttgttg aaaagacaac ctttactcca ttgaattgcc tttgtacttt tgccatatt 107040 107100 gtctaggcct gtttttggac tcctttttct gtttcatgat gtgtgtgtct attcctttgt 107160 taataccaca tggtcttaat tactgtatag taagtcttaa aattgggtaa tgctggcctt 107220 ataaaacgaa tigggaagtt tttattttta ctcttatttc cattitctag aagagattgt 107280 gtagaattgg tgtcatttct tctttagata tttggttgaa ttgggaagtg atgccatctg 107340 ggcctagggt tttgtttttt gtgtgtgaga cagagtctca cttctgtcac ccaggttgga gtgcagtggt gagatcttgg cttactgcaa cctctgcctc ccaggttcaa gttatcctcc 107400 107460 tgeeteagee teecaaatag etgggattae aagegtgtge caccatgeee gactaatttt 107520 tgtattttta atgcagacag ggtttcacca tgttagcaa gctggtctcg aacttgtgac ctcaagtgat tagcccacct tggcctcca aagtgttagg attatagatg tgagccaccg tgcctggcag gggcctaggg ttttctttt cagagtatt taaactatga attcagatta 107580 107640 107700 tttaatagat ataggactat ttaagttatc tgtttcttct tgagtgaatt tttactgtag 107760 tttatggcct ttgagtaatt aattgtattg aattgtcaaa tttatgagcg tgtaattatt 107820 tatagcattt egggtttgta gtggtateee tettttatte etggtgttgg caattgtgte 107880 ttgtttttct ttgtcagatt gtatagggat ttattagtct tttcaaagaa ctagcttttg 107940 ttttgatttt tctgttgttt tgttttcaat tttattgatt ttctgctctt tattatttct 108000 tttctattat ttctgcttgc tttgggttta ttttactctt tttttttct ccaagttgct 108060 taaagtagaa acttagattt ctggtttgag acctttcttt tctaagataa gcatttaata 108120 ctgtaaattt ccttctaacc actgctttag ttacaccccc acaaattctg gtattttgaa 108180 ctgagcacaa atgaaatgtt ctaatttccc ttgaatctta ttcttttacc aatgaattat 108240 ttagaaatat gttatttagt ttgcaagcaa ttggagactt ttttcctgtt atttttctac 108300 catttatttc tcatttcatt atattatggt cagagaatat attttgaatg atttcattta 108360 ttaattttta aaaataacat taaaaaattt tttaaaatgt gaatatacca catacagtat aaagattgta cattctgttt ttggacagtt ttctataaat gtcaagttga tttagttggt 108420 108480 taatgatggt gttcagtttt totttattct tgctgatact ttgtatgcag ttatatcact 108540 ttattactca gaagagtgtt gaactttcca actacaattt ttttttccaa ttttactttc agctctatct ggttttgctt catgtatttt gaggctctgt tgttaggtgt gtacacattc 108600 108660 aggatgatat cttctgggtg aattgcctgt tttatcatta tgtaaltccc tctttatggt 108720 aattttcctt gttctaagat cagaaatatc tgttgtccaa tttatataga cactgcagct ttcatttgat tagtgcttgc atggcatatc tttttccatt tttttacttt tgatctacct 108780 108840 ttataattet atttaaaggg ggettettgt aggeageata tagttgggta gtgttattta 108900 tttatttatt tatttattta tttatttatt tattgagaca gagttttgct cttgttgccc aagctggagt gcagtggtgc aatcctggct taccacaacc tccacctcct gggttgcagt 108960 109020 gatteteetg ceteageete ecaagtaget gggattacag geaegegeae catgeetgge tgatttttg tatttttagt agaaacggat tttcaccatg ttagecagge tegtettgaa 109080 109140 ctectgacet caggtgatec acetgetttg geeteecaaa gtgetgggat tacaggegtg 109200 agccactgca cccggctgag tcatgttatt tttaatcttt tctcacaata cagggttttt gttggtaaat ttaattattt taatataaat tttagtataa ttatttacat taaatgtaac 109260 109320 tgttgcactg gggtatttat aatgtgtaaa tataattatt ggtattaata taattatatt 109380 actcataata atattaatat ctttggattt agattaccag tttagtatat gtttttctgt 109440 ttetecetet ttgattteee ettttttget ttttttttt ttttaattet tattttttt 109500 tagtatttgt tgatcattct tgggtgtttc ttggagaggg ggatttggca gggtcatagg 109560 acaatagttg agggaaggtc agcagataaa catgtgaaca aggtctctgg ttttcctaga cagaggaccc tgcggccttc tgcagtgttt gtgtccctgg gtacttgaga ttagggagtg 109620 109680

-84 of 185-

gtgatgactc ttaacgagca tgctgccttc aagcatctgt ttaacaaagc acatcttgca 109740 ccaccettaa tecatttaac eetgagtggt aatagcacat gtttcagaga gcagggggtt 109800 gggggtaagg ttatagatta acagcatccc aaggcagaag aatttttctt agtacagaac 109860 aaaatggagt eteccatgte tacttette tacacagaca cagtaacaat etgatetete 109920 tttettttee ccacatttee ccetttteta ttegacaaaa etgecategt cateatggee 109980 cgttctcaat gagctgttgg gtacacctcc cagacggggt ggcagctggg cagaggggct 110040 cctcacttcc cagatggggc agccgggcag aggcgcccc cacctcccag acggggcagt 110100 ggeegggegg aggegeeece caecteeete eeggatgggg eggetggeeg ggegggget 110160 gacccccac eteceteccg gacgggegg etggeeggge gggggetgae ececeacte 110220 ceteccagat ggggcggetg geogggeggg ggetgecee cacetecete ceggacgggg eggetgeegg getgagggg teeteactte geagaceggg eggetgeegg geggaggggg teeteactte teagacgggg gagacgetee teaceteeca gatggggtgg 110280 110340 110400 cggtcgggca gagacactcc tcagttccca gacggggtcg cggccgggca gaggcgctcc 110460 teceatecea gaegggegg eggggeagag gtggteecea cateteagae gatgggetge 110520 - cgggcagaga cactcctcac ttcctagacg ggatggcagc cgggaagagg tgctcctcac ttcccagacg gggcggccgg tcagaggggc tcctcacatc ccagacgatg ggcggctagg cagagacgct cctcacttcc cggacgggt ggcggccggg cagaggctgc aatctcggca 110580 110640 110700 ctttgggagg ccaaggcagg cggctgggaa gtggaggttg tagggagctg agatcacgcc 110760 actgcactcc agcctgggca acattgagca ttgagtgagc gagactccgt ctgcaatcct 110820 ggcacctcgg gaggccgagg caggcagatc actcgcggtc aggagctgga gaccagcccg 110880 gccaacacag cgaaaccccg tctccaccaa aaaatgcaaa aaccagtcag gtgtggcggc 110940 gtgcgcctgc aatcccaggc actctgcagg ctgaggcagg agaatcaggc agggaggttg cagtgagccg agatggcggc agtacagtcc agcctcggct ttcacaactt tggtggcatc 111000 111060 agagggagac cggggagagg gagagggaga cgagggagag cccctttttt gctttctttt 111120 111180 gatteteetg ceacagetee caagtagetg ggaetgeagg catgtgeeae tacaeceage 111240 taatttttt gtattttag tagagacagg gtttcaccat attggccagg ctggtcttga actcttgacc tcaagtgatc cacctgcctc ggcctcccaa agtgctggga ttacaggcgt 111300 111360 gagccaccat gccctgcctt tttctagaat ttatatattg agttcttgat tgtatctttt 111420 tatgtagget ttttagtgge ttetetagga attacaatat acataetttt cacagtgtae 111480 tcacatttaa tattttgtaa cttcaagtgg aatgtagaaa acttaaccac cataaaaata 111540 gaactaggga tgaggttaaa aaagagagag aaaagaaatg taataaagat ttaataacac 111600 cgttttttt ttttttctc tttttttt gagacagagt ctctctttct gttaccaggc tggagtgcag tggcgtgatc ttggctcact gcaacctccg cctcctgggt tcaagtgtt 111660 111720 ctcctgcctc agcctactga gtagctggga ttacaggtgc gcgccaccat gcccagctaa 111780 tttttgtatt tttagtagag acggtttcac tgtgttggcc aggatggtct cgatttcttg accttgtgat tcgctctcct cagcctccca aagtgctggg attacaggcg tgagccaccg 111840 111900 egeceggeta agtetttaaa tattttttg acattgeact ttttetettt teettetagg 111960 attttagtaa cccaaatgtt agttttgtta ttgtttggca ggttcctgag gctttcctta cttctttaaa ttttttttc ctgttgttca gcttcgaaaa tttctattca tctgtcttca 112020 112080 aattcactgg ttctttcccg ttatttccat tctgttattg agtctttgta gtgaatttta aattttgtt attatgttt ttagttctaa aattttctt ttttgtgtat gtcttatact 112140 112200 ttgctcctga aactcttatt tgtttcagga gtgatcttat ttcttagagc atggttttag 112260 tagctactta aaatttgttt tatcatccca gcatatgtgt cctcttgatt gtcttttctc ttgtgagata atgggatttt ctggttcttt atatgacaat taattttgga ttgtatcttg 112320 112380 gacagtttga cttacgttac atgattctga atcttgttta aatcctgtgg aaaatattga 112440 agtttttgct ttaacaagca gttgacctag ttaggttcag tccacaaatt ctaagcagca ttctgtcggc tctggttcca tcatcagttc agttttgtat cttatctgct tatgtgcctt 112500 112560 tetgtgteca gtetgggace tggccaatgg teaggtecea aageetttgt acaettttag 112620 aagcagggcc atgcacaccc agctcacgag tggccccggg agtgcacata caactcgacg 112680 ttttcatggg ctccttcttt tctgtgatgt ccctgacacg ttctgccttc taagaacctc cctttatccc tttcctgttg tctggctaga aagtcagggc tttagattcc ctatacttca 112740 112800 gcacacttcc tgtagctatg tcaacctctg tggccacgac ttcttcttct tgggactgca 112860 gtttctcttg tcagaaagta ggattcttgg agctgctgtc attgctgctg tggctgctct 112920 gatgctgct gggagtcgaa ggagagaaag gaacaaaaca aaacaacca ggggatttcc tcactctct ttgatccgtg agagcccct ttcctgttcc tcagaccaga aatagagggc ctgtcttgga acttcttctt tgtcagatctg gtgtgcagtt tcagcttttg agtccaggcc aggaggtgct ggacaaactt gtcaggata cggaggtact gcaagttctg attacttttc 112980 113040 113100 113160 tcagtccacc tgcttccaag tccttggatg catttgtcca ttgttttgag ttgcattcca tgggagagac agaagagtgt gcttatttca tcttgacata cttattagga tttcatatca 113220 113280 aatcaacgga tgatattctc tatattaatt tgctgttttc cctttagcaa gcacattagg 113340 aaaataacac tttaacaccc gcctttggtg gtttctgtca taattattaa tacttgactt ttttttttt tttgagacgg agtctcactc tgtcctttga ggcattgtcc ccataaactt 113400 -113460

-85 of 185-

ttggtaaagc atcaataatt ttatctttca tccacacaag cttcaccata aatttgatgt 113520 ttattcttcc attttagcag aattcatgtt gctccaatag gggctgtctt caaactgatg 113580 ttttctcctt cttagtgcct cagagtagat cctgttcaga tacgttataa caggttaata 113640 tgagtttatt ttggtgtaaa agtactttga aattcatgca tagttttttc atcatatgca 113700 ttttccatag ctttgaacac ccccatgtaa ctctcctctt ccacaaacca aacaatgaaa 113760 aagcaccttt gtgatggaag tttattttgc aataggaact cacagtgatc taagccctgc 113820 tattcatgaa tataattcat tactggagtc caagttgctt tttggttttt gaagttctct 113880 tettecettg caggtataga acaagatgea gtgaataett ttaccaaata tatateteca 113940 gatgctgcta aaccaatacc aattacagaa gcaatgagaa atgacatcat aggtaagcag 114000 tgettgaaac tatggcaaaa aaaaaatgac aaaaaatgca cagaactgac aattttcgtt 114060 attgactaag ataatttttt cttaacatgg aatttagcag ttcccttcct aatttgtttt 114120 ctgagtattt tttatatcgg attatagetc actttaaaag tttctcggct geattcggtg 114180 cgagggtett tgcctgggcc agatgggctg cagtgtagcg ggtgctcagg cctgcccgct gctgagcagc cgggccggcg ggcggctacg ctaaccggca cagaccaccg gatggactgg 114240 114300 ccggcagccc cgcaccagtg cacgaagtgg gcgggacaga aacttctggg gttggaagtc cagtgaggct aaaagccggt accaaagtct ctaggcatca gggctgcagc ccaagagtct cacgaccagt gggcaactgg atggccagac aggtgtctca gtggtggcct ctccgtctca 114360 114420 114480 gggetteate ceaettetea gtgggeetga egteeetggg caecetggat gtetaeetge 114540 attagecaga gecateacat ggeetgtgae ttgeettttt ttgeeagttg attgtgeeae acacagtgte atttetgtgt catttggeae agetggaggt geaaggagga gggeageete 114600 114660 atgtccagtc ccagtttcac gtaactttat tettetgaat aaagacaatt tgetaacett 114720 aaaaaaaaaa aaaaaaaaa agtttttctt atatgttgga cccaaattct taggctttaa 114780 cctgaataac aatgacagca agatcaataa atagtacaca tttattaaac actcactgtg 114840 teccagacaa tattecaage aetttttatg gatagaetea ttttaaette taaagaaett 114900 tgtgggataa atacagttat tttatagatg aagaaactga agcacagaga agttaagtgc 114960 tttgtccagg gtaacagctc agatatggca gagtcaggat ttgaaactag accetcacat 115020 accttaactg ctgtgctgtg gcagtgtttt tcatactgta ggttgggacc agccttctct 115080 tatgecetca ecceetgeca aaaaaaaaa aaaaaaaaa aaatatatat atatatatat 115140 atatatatat atatatatat aatatatata tatataaaat atatatatat ataaaatata 115200 tgtattagta tatatgcata tatagtatat attatatat agtatatata ctaatatata atatacatat tagtgtgtgt atatatatat atactagaat aaaaaaatca aagtatctca 115260 115320 gagtagtaag gacaaacatt tcagaaaaat gttttcatta tatatacatg tatgtatgtg 115380 tatgctgatt caacaaatat atticttata ggttatagca aaatagtttg aaagctttta ctgtgtttta tcaggaagac cttaggtgaa cgtatattca cagataaaag aggttattta 115440 115500 ttcattcaat aaatattaca ttctcataag tcctaatatt atqtattttt attcttcaaa 115560 aaagttagta tttgtgattt atgaaataag acatgttett geacttttag cagatetgte eegatgttgg gettetttaa teettagtgt gggtgetttg caeteactea etgetgggga cageaagace eetgttagte teagetgtgt ttettaaatt ggeecaetgt acetteeagt 115620 115680 115740 tagetattet ggggtccatg teatgttgge tecattttee ttttettet eccacacaga tacetataac ggetataaca taggeetggt ggetgttggt ggettateee tatetgettg 115800 115860 tatttaaggg gtactgtttc actgagtttt gctgacagat gttgtcatga gatttgaggt tttctgtgtt gttgctctat ttttatgtgg gaatttgcta ctatcatcat ccctagacca gcttttccta gtaatacaac agggatgttc tgactgatta gagtttgcct gttgaagaa 115920 115980 116040 ttggttggct agtgattttt ttttgagggg agtctgtacc agttaatagc ctgactggcg tgtggataaa aaggaagcag tttcaagtca aataaaacac ttaaaatgaa accacactgc 116100 116160 aactetett ettttaetta agettaatea aattaatgat gatgtaatee catgaaggaa 116220 aagtettetg aaggateaag ttgataacat tttgtgatea aagaatttga gaaaacetet ateceagtgt etateattat atattttagg atgttaatta eetgtgtgge tttaggeaag 116280 116340 tcatttttcc tccttgagcc ccattcttaa tcctgtccaa attatttgtc tcctcttgca 116400 gttggactat tttaatatag ctgtccttca agtgagtttt gttcaaagga gccttcactt tagctcttac tgtgtaccca ctttgcatag tcttgtttta aatgtaatcc ttggatttt 116460 116520 ggtgttgcta actaattact gtttttatgt gaggatttag agtgatccag aatctatact 116580 tgcactacct ccttcatctt ccacaaatgt ttgaagtggt agaattttta aaaactttga aggtacagct gacagaattt gctgatggtt tggaagtgag tggtatgaga gggaaaaaaa 116640 116700 ggaataaagc atgactgcat tttttgtttg tttgtttgtt tgttttgag acggagtete 116760 actorogoca ggotggagtg cagtggcgtg atottggctc acggcaacct ccgcctcctg ggttcaagcg attocctgc ctcagcotc caagtagctg ggactacagg cgctcgccac cacgcctgc taatttttt ttttgtatt tagtagaaac ggggtttcac cgttggcc 116820 116880 116940 aggatggtct ccatctcctg acctcatgat ctactcacct tggcctccca aagtgctgag gttacaggca tatatataag catataaagt gtgttatagc atacaaacag gtatatatat 117000 117060 aaacatgcag tccacacagc tgataggaat gaggcagtag tgaaggagaa gttgatgtag 117120 gagaggggac agttgttaca ggaaagaagt ctggaggcag aagggatgaa ttccagtgct cacatagaag attgcttaga tgggagcaag gacaatttat ctagagtcac aggaaagaat 117180 117240

-86 of 185-

gcagtacacg ggtagagatg caggtgagtt gaaagatgtg agagatgatg gaaataattt tctgattgct tctatattct caaggaagca ggaagcaaag tcctcagcaa agagaataga agaggtgtta aatatttgag aaaggagatg tactgtagaa aaaaaaaaa ctcagtttct 117300 117360 117420 cettetgaac teteacaaaa cagaaceett eeatgaetet agttgtgtgg ggttttttee 117480 ctgtcagcta ccaattctgc agatgattgt tcagtgaaca ccaactgggt gtcctctaag 117540 tragttragt tetracactg tttacetgga gatagcatca gatecracag attgaggact 117600 etgteceaca agaetgeete caetteagat gecagtetea agtacaagtt gtggeetgtg 117660 cttctgactg accttctata aattggagtt cccacagtcc cctccttggg ttcaataaat 117720 ttgctagagc agctctcaga actcagggaa atgctttaca tatatttacc catttattat 117780 aaaggatatt acaaaggata cagattgaac aggcagatgg aagagatgca tgggcaaggt 117840 atgggagagg ggcacagagc ttccatgcac tctccaggtc atgccaccct ccaagaacct ctacagattt agctattcag aagcccccct ccccattctg tccttttggg ttttttgtgg 117900 117960 118020 agacttcatt atataggcat gattgatcat tggctattgg tgatcagctc aaccttcagc ccctcatcc cgggaggttg gtgggtaggg ctgaaagtcc caaacgtgta attctgcctt ggtctttctg gtgattagcc ctcatcctaa agctctttag aggccacagc cacaagtcat 118080 118140 Ctcattagcc ttcaaaagaa tccagagatt ccatgaattt taggcgctgt atgctaagaa 118200 actggctaaa ggccagttgc aatgtctcag gcctgtaatc ccagcacttt gggaggctga ggcaggagga tcgtttcagg ccatgagatc aaaaccagcc tggtcaacat agtgagaccc 118260 118320 cettacaaaa aatttaaaaa ttggccagge gtaatagete ttgtetgtag teteagetae 118380 tcagaaggct gaggatcact gagccctgga gttgaaggca gcagtgagcc atgategtgc 118440 cactgactcc ggcttgggtg acaaagtgag accttgtctc agaagaaaaa ggaaaaaaaa aaaactgggc aaagactaaa taacatattt cacagtatca cagatttgta ttgtctagga aagtgaatgt aaacagacca ggacactagt atgatccctt ggtttcatga aggtcccact 118500 118560 118620 anagteatga acacanagtg agactaggen tentgttata tggtttttee agecatgttt 118680 aacagctagc taaatagcta attgtttcgc tgcagtttat tttagcagtt ccttattta gcacatttca tgttttaaaa tttctaccaa taacatttta ataaactttt ttacagataa 118740 118800 etteacaaat ccataatttt ttaagttaca ateccagaaa tagaattget cattgaaagg 118860 gtatgttcat ttttaaagtt atgctagaaa ctgccaaatt gccttcagaa aaaggtgttt gtatccccac taacactagt gttagttttc ttgtgccctt gctcaagtat acatattatt aaaaacaatg ttgggccagt ttactagata aaaggtgtag tgcctcctta ttctaatcta 118920 118980 119040 tttgattact agtgagtatg tatgtctttt cacgttggtc attttatgtt tgttcctttg 119100 tggattgtca tgtcctttgc tcatttttct tttggaacat ttcttagtag tttataagag 119160 ctcttggtat tttaatgata gtaacctttt aactgtcatg catgctgcaa atctttttctgtttgtttgccttgtatt ttgtttttgg agggtttcta tgtataggaa ttaaattta 119220 119280 119340 tgttgttaaa tettttgatt tetgettttg catatgtaet teaaaagaet ttetatttta agatcaagtg ttacctgtat tttcttttag ttctatttaa aacctcttaa tttatatgcc tgtgctgtta actcccaagt tgattcacaa gtgtgtatac atagtttgaa tttagtggca 119400 119460 atttaattat ttacaacttc tittgcagca aggatttgtg gagaagatgg acaggtggat 119520 cccaactgtt tcgttttggc acagtccata gtctttagtg caatggagca agagtaagtt agttcatatt ttcacattgt gcatcctagg gaatttgggt tcattgttag gaatgggctt 119580 119640 cactcagcta aaaacaaagt atttttgaga atttaaatat tttggatatt tacaagatca 119700 tataaagcat actctatctt ggttaacagt ttcttttaaa tataaattat gtgaactctt aaaattttca ttttcatttt caatgttaat atttcctaag ttaaaataat ttgtttttag 119760 119820 ttctgaaata atttggggag tgattgagtc tgtagtgatt atgactatta gaattggttt 119880 atttatttaa ataatgcatg tcttcagatg gctctcctaa tttgttagtt aggctttaag ctaaatggat gctatataac taaatccaca tagatttgtt gaaatggctc cagaggtttt 119940 120000 ttagatttat tactgctatg tgcccttaaa aaaaatctat tcattctttc acttaacatt 120060 tatcagaaga gtgctctgtg taagacgtgg ttaggcatag tgccagtctt gaaggaagtt acagcctaat aaaagacata gggcatgttg tttggttact gtaatatgaa gtggcatgtg 120120 120180 ttaaatgtca ggggagaact acaaagtcat aaaaaggtgg gagagattac atacaggtaa 120240 aggaatcagg aatgacacca tggggagtaa ggtagtgttg acctaggcct ttaagataca 120300 atagggacag tatggaaaga gtatatttt cccacttaaa ctctttcctt ggtcgttccc 120360 tcaaattttc ccttttgtcc atgtgcaggc actttagtga gtttctgcga agtcaccatt 120420 tetgtaaata eeagattgaa gtgetgaeea gtggaaetgt ttaeetgget gacattetet 120480 tetgtgagte agecetettt tatttetetg aggtaaagte tgeatttett tteacactet 120540 attogagoat tocagootot aactatoaat gotggggood tgtotatagg aaataacaca 120600 gaagagccaa gtcatttcca aaaagatgta tcattgtttc aagttgtttc tqatqqcaaq 120660 agtaatttaa taatatatta gagagaacat gaaaattcaa tgtattaaat aactctaatt 120720 ttgagaaacc taattaaact actgcatgta agagagtgca tgtttttaat tatttggagc tattttaaaa ccacagaatt tgaaacttgc ttccagtgca taaattgcag accagacttc 120780 120840 agaagagaaa aaaagtagta aattttttet tatgeteate atttttaett tagteaettg 120900 ataggattgc ccagtgaaga agcatttgca acagacaatg agtatattaa tctttttgag gcatacagtt tagtataatg ctctttgtta ggcttcaaca agtgaaatta ttttgttgga 120960 121020

-87 of 185-

aaqcaaatqa	ctattaagta	gaaagaggat	tcccaqtctc	acaaaqcaqt	aatttagaca	121080
	cctctttaca					121140
	aagtttaaat					121200
	gatataaaat					121260
aggaaccaca	aatccagttt	agraraattt	ttactctagt	tcactaaaag	tttgcatcca	121320
	tagtgtttgt					121380
acttttcaat	ctcaaatgac	tgtaacttgc	tgacaggtgt	taacagaaga	agtagatctt	121440
tttgttttt	gcttatgacc	tgtattttaa	tatttgagct	tatagattag	agattgtgag	121500
agaaatctqt	ttatagtctt	attttccctt	gtgtattttt	tetteetagt	acatggaaaa	121560
agaggatgca	gtgaatatct	tacaattctq	attaacaaca	gataacttcc	agteteaget	121620
	aagggccaat					121680
taacaaataa	gttatattga	tagatggatt	caccacatac	ttattgaca	tttaatatat	121740
tttataaaaa	tasacatosa	taaactcact	ctotattata	anagagatan	anagnagaa	121800
cctgtggaaa	taaagatgaa	cadactcage	coolgigie	aayyayetea	caggaggcag	
cataaaaget	gcttttatat	ggtgtttgta	aagetttggg	ggttettaga	acaaaagttt	121860
ctgctgggaa	aggggaggtg	tatgtggggt	aaacaggatg	gcaatggtgg	tgttcaagga	121920
	gaagagagat					121980
agagaaggca	gaaaacaaca	ttctaggcaa	aggcattggc	ccagaagcca	tggaaacgta	122040
ggggaaagtg	gcactttcaa	gaaacttgag	tttagataat	caaaggagtg	gggaataaat	122100
	tggtactaat					122160
	tttctgtata					122220
	atgagaggat					122280
	tgagcttgtg					122340
	taaaaaaagt					122400
	aggcagaggc					122460
	aaaacccgcc					122520
	cctagctact					122580
tcgaggctgc	agtgagctgt	gatccactgt	actccaccct	gggcagggca	gtagagtgag	122640
accctgtctc	caaaaaaaaa	aaaaacaaca	aaggtaattt	gttatttgta	tccttaagca	122700
aatgctaaag	gggtaacttg	gggatagaga	aaaqtccaca	gatgttaggg	tttgaagaca	122760
ctaataqtat	ctaggccagt	ggttcctgaa	cattagtctg	tagactetta	ctagactatc	122820
tocataggaa	tcacctgaga	gcttattaaa	aataggtttt	caggetggtt	acaataactc	122880
	teccageact					122940
	cctggccaac					123000
ccaagaccag	cccggccaac	tataataaa	gatagtaaga	ccaaaaacac	aagaactagc	123060
caggeatgat	ggcacacacc	attacceta	gccacccagg	aggergagga	aggagaactg	
	ggaggtggag					123120
	ggagactctg					123180
	acacctgtaa					123240
ggtcaggagt	ttgagaactg	cctggccaac	atagtgaaac	cttgtctcta	ctagaaacta	123300
caaaaaatta	actgggcatt	ttgacgggtg	cctataatcc	cagctactag	ggaggctgag	123360
	tgcttgaacc					123420
aaaggtttcc	agtccccctg	tctcagaaat	tctgattctg	caggtttgag	gtgtgaccag	123480
gaatcttat	ttttagaaga	cataccagat	aattotgata	aatagccagt	ttagggatgt	123540
	tcctattttg					123600
	gaacaagtta					123660
						123720
cccagigue	attctggtac	agracyccig	tagaaygtat	cacglaagaa	acaccyctat.	
	agataggaag					123780
	aggagtattg					123840
tacaaaaatg	ctgatttaaa	aggagagttt	tettttttt	cttcttttt	attttttgag	123900
atggagtctt	gctctgtcac	ccaggctaga	gtgcagtgac	acgatctcag	ctcactgcaa	123960
cctccacctc	ctgggttcaa	gcggttctcc	tgcctcagcc	tcctgagtag	ctgggattac	124020
aggtgggggc	caccacgccc	agctaatttt	tgtattttta	gtagagacag	ggtttcacca	124080
tottooccao	gccggtcttg	aactcctgac	ctcaaqtqat	ccaccacca	ctgcctccca	124140
	attataggcg					124200
tatocatcat	cataatcatg	cattatcaac	ctttctattt	ctatcaaac	atacaaacca	124260
	tggaagagag					124320
	tcagcttacc					124380
ctgtgttatc	aatattggtt	actccctttc	cacaccgagt	catcagtaag	tcctgttcta	124440
tccaaatagg	tcatatgcat	ctagctcacc	cctcagtgct	gttttgtttt	gaatttgtac	124500
	ctgatgcctt					124560
aagttctcag	ctcgcttttt	agggaaaatg	accatgtctt	cctttcctat	aaattccttt	124620
ctatctatca	agtcctcaac	agagaatagg	tacccataaa	tatgtgattg	ttagtttctt	124680
	gtagtctgat					124740
actaaggatg	gttggcaggc	agatagaaag	gtagcaagtt	gacccaacta	tetetagaga	124800
		J J3				

-88 of 185-

agtgggaaca aagaaaggtt acatcagcac tgtcatcaca tagctctata gttctaggcc 124860 tgcaggetca atcaagtage ettgtataag attetetgga ggaggtgetg aaagttgett 124920 atacttgcta tggaatttga ttttacttcg gatatctttt taccataggt acttctccct 124980 ccaagccaca catcctcttg gatttgatga tgttgtacga ttagaaattg aatccaatat ctgcagggaa ggtgggccac tccccaactg tttcacaact ccattacgtc aggcctggac 125040 125100 aaccatggag aaggtaaccc agaacttcaa acgtatcaaa ctacaagaag ttttattggt 125160 agaactcata aaatataagg tgggaaaacc aagcagaata gcacagtgga aattgaagca gtccagcaaa gtgattaaga gcagaggcct tgagtctggc ctggtatgta cagtcacgtg 125220 125280 ccacataaca ttttagtcaa cagtggactg cgtgtacgat ggtcctgtac gattataatg gatcaaagct ggtagtgcaa taataacaaa agttagaaaa aataaatttt aataagtaaa 125340 125400 aaagaaaaaa gaaaaactaa aaagataaaa gaataaccaa gaacaaaaca aaaaaaatta 125460 taatggaget gaaaaatete tgttgeetea tatttaetgt actataettt taateattat 125520 tttagagtgc tccttctact tactaagaaa acagttaact gtaaaacagc ttcagacagg tccttcagga ggtttccaga aggaggcatt gttatcaaag gagatgacgg ctccatgcgt 125580 125640 gttactgccc ctgaagacct tccagtggga caagatgtgg aggtgaaaga aagtgttatt gatgatcctg accctgtgta ggcttaggct aatgtgggtg tttgtcttag tttttaacaa 125700 125760 acaaatttaa aaagaaaaaa aaaattaaaa atagaaaaaa gottataaaa taaggatata 125820 atgaaaatat ttttgtacag ctgtatatgt ttgtgtttta agctgttatg acaacagagt 125880 caaaaagcta aaaaaagtaa aacagttaaa aagttacagt aagctaattt attattaaag 125940 aaaaaaattt taaataaatt tagtgtagcc taagtgtaca gtgtaagtct acagtagtgt 126000 acaataatgt gctaggcctt cacattcact taccactcac tcgctgactc acccagagca acttccagtc ttgcaagctc cattcatggt aagtgcccta tacagatgta ccattttta 126060 126120 tettttatae tgtattitta etgtgeetit tetgtatttg tgtttaaata cacaaattet 126180 taccattgca atagtggcct acgatattca ttatagtaac atgtgataca ggtttgtagc 126240 ccaaaagcaa taggttgtac catatagcca aggggtgtag taggccatac catctaggtt 126300 tgtataagta cactetgtga tgttagcaca atggcaagca gcctaacgga aattetgttt 126360 attgattgat tgattgattg attgattgag acagagtttc actccattgt ccaggctgga gtgcagttgc acagtcttgg cacactgcaa cttctgcctc ccaggttcaa ccaattatcc 126420 126480 tgcctcatcc tcccaagtag ctgggattac aggcaggcac caccatacct ggctaatttt 126540 tgtattttag tagagacagg gtttcaccat tttggccagg ctgttctcga actcctgacc ttaagtgatc tgcctgcttt ggcctccgaa agtgctggga ttacaggcat gagctaccat 126600 126660 gcctgggcag taactgaaat tetetaatge catttteett atetgtaaag tgacgataat 126720 atgcacgttt acctcaaagt tactttgatg attaaagtaa ggtaatgtat ataaaataca tattaacata gtacctgaca catggtaagc atcaaaaaat gttaactact tttattacta 126780 126840 ttattattac gtatttttaa ataattagag agcagtatca aaaattagct gggcgtagtg 126900 gcatgcacct atagttccag ctactcagga ggctgaagct ggaggattgc atgagcctgg 126960 gaattaaagg ctgcagtgag ccgtgttcat gcccctgcac tccagccttg gtgacagagc aagaccctgt cttgaacaat taaagaaggc attatgccgc aacgttagct tagaaatgat 127020 127080 ccacatatat caccagtaac tgtcaacagg attggaaccc tagttttggg tattatgatc 127140 acaaggtatt attaatagct tattaataat aaagcgttgg ctaggcacgg cgactcacat 127200 ctgtaatccc agcactttgg gaggccgagg tgggtggatc acctgaggtc aggagtttga gaccagcctg accaacatgg agaaacccca tctctactaa aaatacaaaa ttagccgggc 127260 127320 gtggtggtgc atgcctgtaa tcccagctac ttaggaggct gaggcaggaa aatctcttga 127380 accegggagg cagaggttgc agtgagetga gategeacea ttgcacteca geetgggcaa caagagcaaa acteegtete aaaaatataa ttataataaa taaataaaag taaagtattg 127440 127500 atgtttgtga atgatttatt cttctaatga actagaggag atttttccag gaatttcaga 127560 gccagtgagg ttatgttgct tgtatgtgtc atgtgtatcc aggtgaaaaa acttaattaa 127620 acgctattat ataataccat acataaaaac tgaattttag gaatactgaa gaatgacata 127680 tagaagtcaa atcattaaat agctagtagt aaacagaata gagtqtcaqc tqttacccaa 127740 tgatgataat attttcacga ttaaaattaa accttttctg attttaaagg aaaagttcag 127800 atctgtatca tataaagaat gtaaattttc agggtaataa aattaaaatg cagagagaaa 127860 aatgcaaaaa tagttcttac tagatgtgtg tatgtaagga acttagacta attttaagaa 127920 cactgtcaag accetggtag ttaggtagga aaaaagacat gaatgattca ttcaacaaaa actttgagta tttctgtgct agatggtagt gttacagtgg taaacaaaat aaatgtgttt 127980 128040 ctgctatect ggagettagt etacaaaaaa ggtacatatt ggeegggeae ggtggeteae 128100 gcctgtaatc ctagcacttt ggaagatcga ggcgggtgga tcacctgagg tcaggagttc 128160 aagaccaget tggccaacat ggcgaaacce cgtetetact aaaaatacaa aaattaactg 128220 ggtgtggtgg cggacacctg taatcccagc tactcgggag gctgaggcag gagaatcact 128280 tgaacctggg agacagaggt tocagtgagt cgagatcatg ccactgcatt ccagcccggg 128340 ggacaaaagc gaaaatacgt ctcaaaaaaa caaaaacaaa caacaaaggc acgtattaaa 128400 tacgaacata aatatttaca aattatactg aataagttct catgtttatt atttgcttgt 128460 ccagttacaa acttttcctt cgtagaatta gaaatataaa taataaacat gagaactcat tcagtataat taataattat taaatgtaaa taaaaacatc tatgtacaat taggcattta 128520 128580

-89 of 185-

tttaagaatt atttgaaaaa aaaacaatgt ggaaacagat attttgatat attgctagtg 128640 attgaaattg ataatgttct tttgaagagt aaagtgacca tatatattaa agttaaaatt 128700 taactcagca atcacacgcc tggtgagtta tcttaaggaa atcagtttga aagtaaaatc 128760 aatatatgca caaagacttt aacatttatc ataaaccaga aaaatcgagt ttcaaattat 128820 atcctatgga ctattttctg ctaaaaagta ttaatatcaa ctttatgtaa tactttcgtg acaaatattt tgggggagaa aacccaacaa aattacatgc attgtaattt tttttttt 128880 128940 ttttttttta gacagtettg etceagegte caggetggag tgeagtggtg caatetegge 129000 tcactgcaac ctccatctcc caggttcaag caattctcct gcctcaggcc tcccgagtag ctgggattac aggcgctcac caccatgcct agctaatttt tatagttttt agtagagatg 129060 129120 gggtttcatc atgttggcca ggctggtctt gaactcctgg tctcaagtga tccgtctgcc 129180 toggootoot agagtgotga gattacaggt gtaagcoact gcaccoagco ttatgcatta taattttaat ttgtaaactg tacaaaggga taatacttgt agtacaacaa gaagtaaaaa 129240 129300 catttgttat aggtagttaa catttgtaac cagtagaatt ataggtaaaa tttatttatt 129360 taaaacagtt ttagttggat ttgatttcaa ctttaaaata atgcttttca tctctatcag 129420 gtetttttge etggettttt gteeageaat etttattata aatatttgaa tgateteate 129480 catteggtte gaggagatga atttetggge gggaacgtgt egetgaetge teetggetet 129540 gttggccctc ctgatgagtc tcacccaggg agttctgaca gctctgcgtc tcaggtatta actgattgcg tctgccatta gggagaaaag catacacatc ctttccttca catcccagta 129600 .129660 acagateeta ttatttgtaa attttaagtt gtggaaaaaa aagataaaag ecaggeacag 129720 tggcctgtgc ctgtaatccc agcactttgg gaggctgcgg tgggcggatc acacgaggtc aggaattcga gaccagcctg gccgacatgg tgaaacccca tctctactaa aaatacaaaa 129780 129840 attageeggg catggtggea ggeaeetgta ateetageta ettgggagge tgaggeagga 129900 gaategettg aacceaggag geagaggttg caatgaacca aaateaegee aetgeactee 129960 agcctgggtg acaaagtgag actgtgtctc aaaaaaaaa aaaaaagaga gaaataaaat 130020 tagcctactt actatcttct aatcaaagca tttgtggtaa cttaaaatat actgtattgt aaagtatcat gctgtttcat ttaggccatt attctatttg aatctgtggc tgtttctct 130080 130140 aataaatcaa gtaatatgga atatattcat agcetetgaa gagetettta tgtaagtatt 130200 tatttaggat actttttgta aaataagtga atgaattett aggteteett ttttttett 130260 ttottgagac agggtotoot cgctgcaacc tggaaattot gggctcaaat aatccaccca 130320 ccacagecte etgaataget gggactagag geatgeacea ecaegeetgg etaatttgaa 130380 atttttttt ggccaggcat gatggttcac gcctgtaatc ccagcacttt gggagaccga ggcaggcaga tcacgaggtc gggagatgga gaccagcctg gccaacgtgg tgaaaccccg 130440 130500 tctctactaa aaatacaaaa attagctggt tatggtggct catgcctgta atcccagcta 130560 cttgggaggc tgaggcagga gaatggcttc aaccagggag tcggaggttg cagtgagccg 130620 agatcacgcc actgcactcc tgcatggtga cagagtgaga ctccatctca aaaaaaattt 130680 tttttttaaa tgatggagtc ttgetgtgtt geteaggetg gtettgaace eetgaeetea 130740 aatgeegeet getteageet aagtttettt tittittigta aagagaeagg gietitgetat gitggeeagg giagteteaa aeteetgget teaageagte eteesaett ggeeteteaa 130800 130860 agtgctggga ttacaggcgt gaaccactac ctataatgtt gtgtttcact caaggccttt 130920 tgatttegit ttgcattacc gtgccacatt gtgcatttcc ttgacctttt ttgggttttt 130980 tggagtgctt tcatatgtta aaccatacct gatteteete aaaatcacae aaagtagaat 131040 atcctaagac aagaaatcta aggaggcata aagaagttaa ctggttttat taaactcaca cagtaaatga tagagccaga aatattcccc ttctagtgtt cttcaccatc agcttaatgt 131100 131160 agcataataa ttttctaatt actgttgaca aataaataac cctttgaatt ttcaatactg 131220 ggccttggat aaattttcct aatttgtaag agagtattat cgtattgcca tttacaaagc tctcctgagt atcttttct tctgttaagt ttacctagga gataaactgc tgagtatggt 131280 131340 131400 gtttttgttg ttgtcattgt ttgagacagc atcttgctct gtcgcccagg ctggagtgca atggcacgat cgtggctcac tgcaacctcc acctcccggg ttcaagcaat tctcctgcct 131460 131520 cagetteetg agtagetggg attacaggea tgtgcaacca cacetggeta atttttgtgt 131580 ttttagtaga gaaggggttt caccatgttg gtcaggctgg tattgaactg ctgacctcat gatccacctg cctcggcctc ccaaagtgct gggattgcag gcatgagcca ctgcacctgg 131640 131700 ctgaatgtct tgtttttgat taggcactta agaaaggcct aggtactaac cataaaatat 131760 atttttatac cttttgttga tactatatat atagaaaact gcacttatca taaccttaga 131820 caccttgaag aatgttcaca agcagaacta acccatgtga cccagcatcc agatcaaaaa 131880 cagcattatc agoccotcta gaagocotct tgggcccctt ccattcactg tccttcttgt 131940 caccagggta getactated tgacttttga tggcatagat tagcattace tgttettgte 132000 attttataaa taaaaccata ctgtgtattc ttttcttgta cagctttatt gtgctaattc 132060 acatttacat catacaattc agtggttttt atatggtcac agagttaggt aaccattacc 132120 acategattt tagaacattt ttttcactcc agatagaaac cccctttact taaactccaa 132180 atcccccact ccaccagccc taggcagcca ctagtctact ttttatctct atagagacaa 132240 tagatttgct tattctggac atttcataaa catggaaccg tatattatgt ggtcttttgt 132300 tgccaactgt ctttcactta gcatcatgtg ttcaaaagag catcatgtta tccatgtttg 132360

-90 of 185-

	gcatgtatca	gaattttatt	cctcattatq	gccaaatatc	ccattgcaag	gatttatgac	132420
	attttattta	aattgtaccc	teetttetae	Catttatcaa	taatoctact	ataaccattt	132480
		ttttgtgtgg					132540
	ttgctctgtc	gcccaggctg	gagtgcagtg	gcacaatctc	ggctcactgc	aacctctgtc	132600
	tcctagattc	aagcagttct	cctqcctcaq	cctcccgagt	atctgggact	ataggcacgc	132660
		ccagctaatt					132720
		ttgacctcaa					132780
	aggggtgagc	cactatgccc	ggctgtggtt	ttcatttctt	ttgttgtata	tacataggag	132840
	tagaattgct	gagtcaagag	gtaactctta	aacttattga	aaaactgcca	gattgttttc	132900
		gcaccatttt					132960
	cattteattg	gaacttatta	rergrregge	tgttttaaa	aatgatagtc	attccaataa	133020
	gttctacttc	agtgtggttt	ttgcacttct	ctgatgagta	atgatgttga	gcatctttc	133080
		tggcctttgt					133140
	ttttatttt	atttttattt	atttatttt	ttttgagagg	aagteteact	ctatcaacca	133200
		caatggtgtg					133260
		ctcagcctcc					133320
	cgggctgatt	tttgtatttt	tactagtgac	agggtttcac	catgttagcc	aggctggtca	133380
	caaactcctg	acctcaggtg	atctgcctgc	ctaggettee	caaagtgctg	ggattacagg	133440
		tgggcccagc					133500
		gcccaggctg					133560
	tcctgggttc	aagcgatttt	cctgcctcag	cctccccagt	agctgggatt	acaggtgcct	133620
	accaccacac	ccagctaact	tttgtatttt	ttttagagac	agggtttcac	catqttqqcc	133680
		caactcctga					133740
		atgagetace					133800
		gggttcaagt					133860
		ccttgctcag					133920
	gagtttcagg	agtcctttat	atattctaga	taaatgtccc	ttatcaaatt	atattatttc	133980
	caggtatttt	cttcattctq	tgagttgtct	ttcctctacc	ttttaaaaaa	aataaatttt	134040
		tttgtttgtt					134100
							134160
		aatcacagct					
		ctgaatagct					134220
	ctgtttgtag	agacagatct	tactgtgttg	cccaagttgg	tctcaaactc	taggctcaaa	134280
	gtgattctcc	cacctctgcc	tcccagagtg	ctgggattac	aggtgtgagc	cacacqcaac	134340
		actattaata					134400
		accatgcctg					134460
		ggctggtctt					134520
	aaagtgctgg	gattacaggc	gtgagccact	gcacccggcc	aaaatattgc	cttcttaaca	134580
•	gtattgtctt	ctaatttgtg	aacatggatg	tatcttcatg	tatttatgtg	ttctttcatt	134640
		tttgtagttt					134700
		gttcttttcg					134760
		atgagagagc					134820
	tcaactttga	taaatctgat	tgttagctct	aatagttttc	ttgtggattc	tttaggattt	134880
	tcaatatata	agatcatgtc	atttatggat	agagatagtt	ttttttctgg	ctagaactta	134940
		atgagtagaa					135000
		ttcagtttca					135060
							135120
		attcaggaat					
		aaagggtgtt					135180
	tatggatttt	gggttttatt	ctgttgatgt	gaaatattaa	ttgattttca	gatgttaaac	135240
	caaccttqca	tacctgagat	qaatctcact	tggtcatggt	gtataatctt	ttcaatatgc	135300
		catttactgg					135360
	25-1330000	tatcagaaat	casttcacca	taaatataaa	actogaacgo	taggttetta	135420
		attccaaaga					135480
	ccatactctc	ttgattacta	ttgctttgta	ataagttttg	aaatcagaaa	gtataaatga	135540
	gattttggta	tctgagtaac	agtcctcata	gaattagttg	ggaaatattc	cctctttatt	135600
	ctggtccctc	tttcttttt	gtttaactgt	gtatettgga	gattgttcct	totcaacaca	135660
		tttccctacc					135720
	294949444	bbb		atamara a	L	5-5-6-5-6-6	
	adtidtttta	tttacttaac	CCACCACCCA	gccggggaca	rcaagettgt	ctatgccttt	135780
		aatgctgcag					135840
	tctctctgta	actgaatttt	tagaagtgga	atttctaggt	caacctatgg	ctctgtattt	135900
		ccaattctgg					135960
		gctgtactca					136020
		cctcaccaag					136080
	Lactacccaa	gatacatatt	cocygacyca	-yacagettt	ccacattgaa	yaaacaacyc	136140

-91 of 185-

tgtgagtaca gcacatttgt tggaacttag gtcgttaaga atgtcttata aattcataca ttatacattt tattttattt tatttttag tttttgatac agagtcttcc tctgtcgccc 136200 136260 aggccagcgt gcagtggtac aatcttggct cactgcgacc tccatctcct gggctcaagt 136320 gatteteatg teteageete cagagtaget atggttacag geatgeacea ceatgeeegg 136380 ctaattttt tattttagt agaaactggg tttcaccata ttgaccatgc tggcctcgaa ctcttggcct caagtgatcg gcctgcctca gcctcccaaa gtgctgggat ccttgtattg 136440 136500 ggtaaaagat gaalaltgag ggctgcatgg tggctcatac ctgtaatccc agcactttct gagactgagg tgggaggagt cctggagccc aggagggtga ggctgcagtg agttgtgatc 136560 136620 gegecattge actteaacet aggaattata ggetteagte actgtgeeeg geatgtacat 136680 tttaatattg tgctttcctc ttttagctat agtatgaggt tacatttcag agtcattgtt 136740 gttaagcatc ttaatagtga tgaggttgag tgaaagttac ttctatttca aacactgaag 136800 aaaattttgt acaaatctgt cacattccaa gcccaggact gattgtttca tatacttcta 136860 attttacaat ttctattgta gtccagtgtg aaaaaagcca gtattaaaat actgaaaaat 136920 tttgatgaag cgataattgt ggatgeggca agtetggate cagaatettt atatcaaegg 136980 acatatgccq ggtaagctta gctcatgcct agaattttta caaqtqtaaa taactttgca 137040 tcttttaaat tttttaatta aattttacat ttttttctaa tctattatta tatgcccaga 137100 actttcactt agagtgtgca gtataatgtg gtggttaagt ataaaggctc tggagtgact tcctgggttt taatcttggc tctgccattt attggcagcc gctaacctct tggtatctca 137160 137220 gtttcttcat ctgtaaaatg agaataataa agtgaaaaga tgccaacatc atttactctg ggctgcataa ctgatacttg gaaaaagtat tcctttgagt ttaagaatta agttggttat 137280 137340 tcattttagc ttgtaataaa aagatagtga ttcataggat atgccactta ctgaaattta 137400 ccacagatcc aatcataaaa tcactttctc ttccctaaag atagcttgat taacatgtaa aggtgtgtaa aggcttgatt acactaccct gatccgtacc ccagttccca gcagcaccat 137460 137520 gaaaaaggga tttcaacata tttaattact ttcagtagaa agtaacagtg gtaggccagg 137580 cgcaqtggct cacacctgta atcccagcac tttgggaggc cgagqtgggc ggatcacgag 137640 gtcaggagat tgagaccatc ctggctaaca cgatgaaacc ccgtctctac taaaaataca 137700 aaaaattagc cgggcatggt ggcaggcacc tgtagtccca gctacttggg aggctgagac 137760 aggagaatgg cgtgagcccg ggaggcggag cttgcagtga gcttagattg tgccactgca ctccagcctg cgcagtggag cgagactctt gtctcaaaaa aaaagaaagt aacagtggta 137820 137880 ttgggagact gaggagccta gaaagtactt gaaggaagta aaaggtttgt ttgaccacat tgtatttgga aagccagctt tttcagctgt gtcagctttg tgtagtgatt tttagttett 137940 138000 cttttagaaa ataacggaca aggccgggca cggtggctca cgcctgtaat cccaccactt 138060 tgggaggceg agacgggegg attacctgat ctcaggagtt cgagaccagc ctgggcaaca tggtgaaacc ccgtctctac taaaatacaa aaagttagcc gggcgtggtg gcgtgtgcct 138120 138180 gtagtcccag ctactccgga ggctgaggca ggagaattgc ttgaacccgg gaggcggagg ttgcagtgag ccaagatcac accattgcac tgcagcctgc gcgacagagt aagactctgt ctcaaaaaat aataataaa taaaaaagaa tggacagtaa acctaaatga gttcattccc 138240 138300 138360 aaagatgatg ttattettaa gggatggtte atttatitaa gaeettaeat aaagtetate 138420 aattgcgtga tttttcactt ctgtaattgt gtgtatgtat aatgtaaata tatatgtttt tgttttgttt tggttttttg agacggagtc tcgctctgtt gctcaggctg gaatgcagtg 138480 138540 gigcaatete agetetetge aacetetgte teccaggite aagegittet tetgeeteat 138600 cctcccaagt agctgggact acaggcacgt gccaccacgc ccggctaatt ttttgtattt ttagtagaga tggggtttca ccgtgttagc caggatggtc tcaatctcct gacctcgtga 138660 138720 tecacegee tragettece anagtettee tattacage atgagecace acacecagea 138780 tgtatttttt aaatgtataa aatgaagcag aaaagagaaa tgataatttt tcttcatctt gaaagattat cttcaccagg cgcagtggct cacacttgta atcccagcac tttgggaggc 138840 138900 ctcggcaggc ggctcacttg agttcgaaac cagcctggcc gacatggtga aactccgtct 138960 ctactaaaaa taaataaata aagatggttt taatatatgt tttagtttta tgattttagc 139020 atctttctga aatttttctc aaggcaagta aatttgtatc agttggtata ttggtaccca 139080 tctatgaaat aacttattag gaagatatct ctaaaataag atcactttgc ctaaaataaa 139140 ctgatatatt gatgttcaca gaatttttct tttaaccgac ttgataaatg cattattctt 139200 gacgtcaagt gatccacctt cctcagcctc ccaaagtgct gggattacac acatgagcca 139260 ccgcacctgg cattattctt ataaaaggtt aaatttctag ttaagtttaa tgtcctcttt 139320 gttcatgtac cattgcttat tttcttccct tcctactcac agtaatcatt cttatggtat 139380 gcacttitgt ttgcitattt ttatgtaatt gatattacgc tccattctgt acgttgtact 139440 ttcattcaca gtgagttttg gacattccta tgttcatcta tacagactta cttcatttta actacactgt agtattccgt atgtaatatt tactataact catcactgta gcagagcatc 139500 139560 tcatagtgta tgtattactg ttttgccatt ttggtatcaa tgagtattta agtcatttgc 139620 139680 139740 teactatgit geceaggetg gteteaaact cetaggetea ageaateett ceatettige 139800 ctcccaaagt gctggggtta caggcatgag ccaccatgcc tggcctacat tttaaatttt gatagctctt acaatttact ttgtaaagta tctgcatcat tttatgttct caccagtctt 139860 139920

-92 of 185-

taataaqaat	acttcatact	tttggctgga	cacaqtqqct	cacqcctqta	atcccaqcac	139980
						140040
		agatcaagag				
ccctatctct	actaaaaata	caaaaattag	ctaaacataa	taacacaccc	qtaqtcccaq	140100
						140160
		ggagaatcac				
cttagatcac	accactgcac	tccagcctag	caacaqaqtq	agactctqtc	tcaaaaaaaa	140220
aaaagaatac	ttcagactta	atttttttc	cactettaac	tatttactaa	tagasttaga	140280
addagaacac	cccagaccca	accecece	cagccccaag	Lgcccgccaa	cgagaccgag	
tttcttttgg	tatgtctctt	gattgttcag	gttttttctt	ttatgaattg	actgttcatc	140340
tetttteac	attatttctg	ttgggtgatt	ttattagtga	cttottaaaa	ttctgtatat	140400
			ccaccagoga	oocyccaaaa	to to the second	
tttttcagca	tgacacttca	ttattcaaaa	aaaaaaaaag	attetetatg	tttctcgata	140460
ctaatcattq	gttggtaata	ccttaaaaat	aagaccctta	ctgtatttt	tactttttt	140520
						140580
		tttgagatag				
aatggtatga	teteggetet	cagctcactg	caactgcaac	ctctacctcc	ctgtttcaag	140640
		cccaagtagc				140700
gctaatttt	gtattttag	tagagacagg	gtttcaccat	grrggccagg	etggteteaa	140760
actactggcc	tcaaqtqatc	cgcctgcctc	ggcatcccaa	agtactggga	ttacaggcat	140820
		tttttgcttt				140880
gtataaacag	atgtatgtat	acacacaact	atggctttat	aatatgtttc	agtcattgtt	140940
		ggtgcttctt				141000
tttttttta	tttgtgaatt	ttagaattgt	gaattacctg	ttgactcacc	argttttgta	141060
aactgaggat	tttgaatgga	attgcactca	attaaagatt	atcttgcttt	ctatacaaca	141120
atatttatt	tossstasto	cctactttaa	attacttacc	ataggtataa	attatattta	141180
tggctttcta	gatttagatg	aaacgcttta	aattgattgt	tttctcctaa	atttaaaact	141240
		ttctgttcat				141300
					aggaaatcaa	
aaggtttgtg	gtgtttttat	acttcatatt	aagcctttac	tcacattagt	gattgactgt	141420
		tttaaactgt				141480
accttgtgtt	tatagtcaga	agtaagtaca	agggcttcct	gtagtcacat	ctttatgcaa	141540
teteetetga	atcaaaagtt	agtgaacttg	ctttqccact	ccagaaggca	catgaatatg	141600
		ttatttaatg				141660
gtttgagacc	gtttatttta	ttaaattata	ttttttctct	tttcttttt	ttttttgaga	141720
		agaccggagt				141780
	_				_	
		gattttcctg				141840
qtqcqcacca	ccacacctqq	ctaatttttg	tatttttagc	agagatgagg	tttcaccacq	141900
		ctcctgacct				141960
gtgctgggat	tacaagtgtg	agccaccatg	cctggcctta	ttaaattatt	tttattaaat	142020
ttcctcaaga	ttgatgaaag	taatgaaata	taaaagtaat	gaaatatatg	tagaaaatag	142080
agtggattaa	gazaztatag	gagatataga	gastagstag	tataaaaaa	±222222	142140
actggattaa	gaaaatgtgg	cacatataca	ccatggatac	tatguaguca	Laaaaaayya	
tgagttcatg	tcctttgtag	ggacatggat	gaagctggaa	accatcattc	tgagcaaact	142200
		aacaccgcat				142260
		tggggaacat				142320
actagagaga	gaatagcatt	aggagatata	cctaatataa	atgacgagtt	aatqqqtqca	142380
		tatacatatg				142440
ctagaactta	aagtataata	aatttaaaaa	aaataaatat	atgtggaaaa	tattaatagg	142500
tcaaaattca	aattottcat	ttaatcagaa	gagtagttta	gtcaaatcca	agggttagac	142560
2262622246	+++++	agtgcattct	ttetesetes	tttasttta	ttactacttt	142620
acacaggaag	atttcagaaa	caaatgtgga	tccgtgacag	atggtatcta	gaagttttta	142680
		ttttattgag				142740
3000330030		****				
attcaatttt	gataagtatg	tttaagatta	agagctattg	gccaggcgct	gtggctcatg	142800
cctqtaatcc	tagcactttg	ggaagctgga	acaaataaat	cacqaqqtca	agagattgag	142860
accatected	ccaacatggt	gaaaccctgt	ctctactaaa	ttagccaggc	ataataacea	142920
atgcctgtgc	accegeetee	gggtttaagc	gatcctactg	cctcaggctc	ctgagtagct	142980
gggattacag	acaccataac	taatttttgc	atttttagta	gagacagggt	ttcactacat	143040
taggaggaga	gatatagtat	casactcoto	acatanasta	atataggga	attaggatag	
					cttagcctcc ·	
caaagtgctg	ggattacagg	catgattcac	catgtctggc	catttatctt	attttcttt	143160
tttttttt	ttttatttaa	gacggagtct	tactatata	cccagagetg	gagtggaatg	143220
~======================================		2255555			3-3-3-4-cg	
grgcgatete	ageteaetge	aacctctgcc	ceetgggtte	aagcaattct	cergeereag	143280
tcttccaaqt	agctgggatt	acaggcgcgt	gccaccacat	ctagctaatt	tttgtatttt	143340
tagtagagag	agggtttcac	catgttggcc	aggetgetet	consactort	gacctcgtaa	143400
LCTGCCCACC	reggeeteee	aaagtgctga	gattacaagt	gtgagccact	grgcccagcc	143460
atcttatttt	ctttctttt	ttttgtcggg	taggaaaaaa	acadaqteta	actetateac	143520
						143580
-aggurugge	caccycaac	ctctgcccc	caggirdiag	Cadlualict	geeceageet	
cccaagtagc	tgggattata	ggcacctgcc	accacgcctg	gctaattttt	tgttattttt	143640
agtagagatg	gggttttgct	atgttgacca	tgctgacctc	aagtgatcco	cccaccttqq	143700

-93 of 185-

cctcccaaag tactgggctt acaggcgtga gcttgtattg ggtaaaagaa caatattggg 143760 ggctgcatgg tggttcatac ctgtaatctg agcactttgt gagactgaga tggaaggagt 143820 gttggagccc aggagggtga ggctgcggct gcagtgaatt gtgatcacgc cattgcactt 143880 ccacctaggt aatggagcaa gaccatgtet ctaaaaaaca aaacacaatt tttttaagga 143940 atactgggaa gaggtcagtg gtggttttag aacagaggaa gtgccagatg acctttgtga ggcattggcc aggaagaact ctacagtgtc tttaggtagc ttctgtccat aaggataatg 144000 144060 gggtctcctc cccagtatta atagaaaatc tctgagctgt ttttttttgt ttgtttgttt 144120 tgtttttttt teetgagatg gagtetetet etgteggeea ggetggagtg etgtggegeg 144180 atcttggctc actgcaaget etgcetecca ggttcacace attefeetge etcageetee 144240 caagtagctg ggactacagg tgtccaccac cacgcccagc taattttttg ttatttttag 144300 tagagatggg gtttcaccat gtcagccagg atggtctcga tctcctgacc tcgtgatccg ctcgcctctg ccttgcaaag tgctggagtt acaggcgtga gccaccgtgc ctggcctggt 144360 144420 144480 gtcgcccggg ctggagtgta gtggcacgat gtcggctcac tgcaagctct gcctgccagg ttcaagccat tctcctgcct cagcctcctg agtagcaggg accacaggcg ctcgccacca 144540 144600 cgcccggcta attttttgta tttttagaag agacggggtt tcaccgcatt agccaggatg 144660 gtotogatot cotgatgtog tgatocgoco acotoggoct cocaaagtgo tgggattaca ggtgtgagoo acogtgoctg gcotgatttt ttttttttt taatotggto toatacotot 144720 144780 gacageteat gaagaagtge teetgettea tatgtatatg tgttageata gtgttaaeat ageataggtg teeggtgtt geagtteetg tetgttetat atgaattaag gtgtattatg ageagttgaa gatatatagg aaatttette eeaaaceaet atetetgete gttetattea 144840 144900 144960 ttcagtctgt ttatgttatt ccttcattca ttcattttat agaacagtgg agtgcctact 145020 gtatgcatct attgttctgg gtcctgggga agaaaacaaa gttcctgctt tcatggaact tacattatat tggcggagac agtaacagac aaacaaatgt agcctgtgta catgtgttac 145080 145140 atgaaaagca gggtaggggg ctgggagaga gtagtaggga gtgctatttt cgaggtggtt gtcaggaaag gcctcactga ggaggtggca ttttgagtag acctgagcgc agcgggggcg 145200 145260 taagcccagg cagcatgtgg aggaagagtg ttcttggtga aaggaacaag gatagaggcc 145320 cgaagctaga gagctcagca tgatcaagga acagcaagcc ccgtgtggct ggaatggagt 145380 gagcaaagga atgagcagta gaaggtgagt gagttgggag gtcaccagag accatggcaa 145440 ggacttgaaa gtgtcaggga cacattggaa gttggagcag ggaaatgatg ggatttatgt 145500 tttgtttttg ttttatgttt agtgttttta agggattgct ctatcagcta tttggaaaatttagtgtagg gcttcaagaa gagaagcaga gaaacaacat tcttgccata gtcatagtct 145560 145620 145680 145740 145800 agtttggtta aacacccctg tatatcctgg ttcttctttt agttgtccag atgtctcttt 145860 aagtcaagta ttttttggtg gtgtaggagc ctagagattg aatttattca cccaaaaggc atttgagtga ttactatgtg ccaggcacta tgctgaatgc caaggatgta aataagagg 145920 145980 cgtagtetea gtetgtttta etecagettg gtteettttt aatgaceetg aettgttaag catateagtt atectacaga atgtttaate ttetgtaett teetggttgt gttatttage 146040 146100 ttatttctct ttccttgaca tttcttgtaa actggaagtt acacctatag tcttgatgat 146160 tegtgttaca cattttagat tagaacacat catgtgttgt atatggtgtt tttgaaagce 146220 tetetgtata ttggtetgta cattaaaatg ttgeetgaat ggatacacat aaaatttaac 146280 agtgattaca ttagagatga gaagaaagag gtgcctttta cttttcaata taccttttcc 146340 tetgettttt gaactttett geettatgea taegttattg ettaateate caecteatet etteeeetgt ggetttetgt tgeatttgga atgaaateta geetetttge tgttaeetgt 146400 146460 ggatgtccct tgctggcctc tatcacctta ctttgaacca ctcctttcat ggactgagct 146520 ctcattggac tatettttat tettttgetg aagtttette actttgagtg cetetgeagt tgetatttea tggetgtgge aagecetgee atggetttea tgeaaggatg gtteeteett 146580 146640 146700 146760 ttttttttt gagatagggt cttgctctgt tgcccaggct ggaatcacga ctcactgcag 146820 cctcatcttc ttgggctcaa atgatcctct cacctcagcc tctcgagtag ctggaactgc 146880 aggeacacac caccatactt ggettattat tttacttttt gtagagacag ggtttcacca aggetggtet caageteetg eegcaageaa tecacatete teageeteec aaagtattgg 146940 147000 gattatagga gtgagccact actcctggcc tattttctta ttcactgtct aaaattatct 147060 tgttcattta tttacatact tgtttatagc ttatttctca gctggacatg gtgcctcaca cctgtaatct caatactttg ggaggctggg ttggagaatt ggttgagccc aggacttcaa 147120 147180 gaccagootg ggcaacaaag tgagaccotg totataaaaa attgittaaa aattagotgg 147240 gcatggtggc acatgcctgt ggtcccagct acttgggagg cagaggtggg agaatcgctt 147300 gggcccagga ggttgaggcg acggtgagcc atgattgtgc cactgcactc tagcctagtg 147360 acagagtgag accatgtgtc taaaaagtaa ataaaaatag tttctctttc atgactagaa 147420 tattacetet atgtgggeag ggagtttgte tatactattt ggeactatat tteetgatte 147480

-94 of 185-

tgaaattatg cctagcacat ggtaagtact ccttaaatat ttattgactg aattatttaa tacttaagaa tttcatttgg gattatctga gtggtaagat tacggattat atttatgtaa 147540 147600 gaaaaaatca ttttttaaac ttggttgccc tttgccacac tgacatagac actaagtttt 147660 cttagccaga ttacttccga ggatactcac agaggccatt ctcttctcaa tccccaaata attgatattt cttagcactt tcaagctaat gcaattctta gatgatgtat ctgtgtatat 147720 147780 catatectea ttetacaaat gtagaaattg aagtetggge acagtggete teacetgtaa 147840 tctcagcagt ttgggaggcc aaggcgagcg gatcactgag gacaagagtt aagaccagcc tggccaacat ggtaaagcct tgcctctatt aaaaatacaa caattagggc cgggcgtggt 147900 147960 ggctcacgcc tataatccca gcacgttggg aggccaaggc aggcagatca cgaggtcagg 148020 agttogagac catcotggot aacacagtga aaccocatot otactaaaaa tacaaaaaat 148080 tagccaggca tggtggcacg cgcttgtagt cccagctatc gggaggctga ggcaggtgaa 148140 tecettgaae eeggaggeg gaggttgeaa tgagetgaga ttgeaeeget gaaeteeage etggteaaca gagggagaet etgteteaaa aaaaaaaaa aaaaacaatt ageeaggegt 148200 148260 ggtggcgggt acgagtacct gtaatcccag ctactaggga ggctgaggga ggagaatcac 148320 ttaaacccag gaggtggagt ttgcagcggg ctgataatgc accactacat tccagcctgg 148380 gcaacagagt gagactctgt cttaaaaaaaa aaaaaaagaa agaaagaaat tgaggaatgt 148440 ggagattgtg gtctgtgatt tgttaggaat cacacagcag gttagtagca actacagggc 148500 tttggttcag aataccacct tgacaatggt ttgtttacag ttcggctccc cttcctctgc 148560 ctttctctcc ttccttattg agggcagctg gaaagaattt tcatcattta ctagcctata gctttaattt gagttttgaa accttgataa tagagcacag aggaaaagac tgagttttct 148620 148680 ttttttgaga cagtcttgct ctatggccca ggctggagtg cagtgacacc atctcagetg 148740 gttgcaacct ctgcctccca ggttcaagca attctgcctc agcctctcga gtagctgaga 148800 ttacaggcac gtgtcaccac gcccagctaa ttttctgttt ttgtttcgtt ttgtttttt 148860 ctgagatgga gtcttgctct gtcacccagg ctggagtgca gtggtgcgat gttggctcac tcaaacctct gtctcctggg ttcaagcaat tcttctgcct cagcctccc agtagctggg 148920 148980 actacaggta cgtgccacca tccctagttc atttttgtat gtttagtaga gatggggttt 149040 cactatgttg accaggetgg tetegaaete etgateteag gtgatetaet egteteagtt teccaaagtg etgggattat tggcacaege etatttttgt atttttagta gagaeggggt 149100 149160 ttcaccatgt tggttagact ggtctcaaac ttctgacctc aagtgatttg cccgcccag 149220 ceteceaaag tgetgggatt acaggegtga gecacegtge ceagecaaga ttgagttttg 149280 aaaagagcct tctgagatta tgagaagggc aagcaagata acttaagaag ttacattaaa 149340 atcatctaag agacagtgta acaagaagga attgtaaaat gatgttatga gcacgtgccc 149400 aatgtagtgg caatcccttg tgcttcgata cattggtggg agacaaaact gtacttaaat tgataaatcc cttacatgtc attttaagga gcttagactg actcccatca tgtagacatc 149460 149520 149580 tigitigiciga ggetigiagtig caatggegtig ateteggetic accaeaacet ecaeeteeca ggiticaagea atteteetige eteageetee egagtiagetig ggattacage eatgeaceae eaegeetigge taattitigita tittitagtag agaeggggtit teteeatgit gtiggetiggte 149640 149700 149760 tcgaactcct gacctcaggt gatcctcccg cctcagccac ccaaagttct gaaattacag gcgtgagcca ccgcgcccag cccagagatt tctaaacaga gttctaacca gatgcttttc cctgtcagta gaatgagaat gaattggagg tgggagagac tggcatgagg gacaccagtc 149820 149880 149940 agccagtgga attagctggt aatgttgata ggagaagaaa aagattcaaa gttaggtagt 150000 ggtagcaaga attagaggga aggtcggatt tatgatatgt ccaaggttga attctaaggt 150060 gaaatttggt ggcagatttc atgtgtaaat tgggaaggta gattgagttt ttttaacatg 150120 ggttttctaa catgtcaata gagtgactct gcaggggggc ctgacgagag aacagtgcat 150180 ggggtgattc aacagccagt tgagccttca tgcagagcat ttaacactqt qactctgtaq 150240 actotggttg gcagtaaaat ttcattaaac caatatttaa accottaggt aataataaaa attgagggaa aaggatccag gttttgtatt ttttatgaat tcagttattg aattaaacag 150300 150360 gaccttgcct caagaaataa tctaccaaca attaacttgt tttaaaqcaa aqttaqqaaq 150420 tgagcatgtt caaattatta aataaaaaag taagctgtgt atttcattca tagaaataga ggctggccta cttcggatga ttctcagcat gtgattacag atgtgggctt atacatccta 150480 150540 gggagttaag gcgtactctg gcttggatag agtagagctc tttgaaactc ttctctcacc 150600 cagctagttt atatagacta gagaactaga atgtagcagc atactctgtc ttagaagccc 150660 ttttatatag gagctggtct ggaaggtttg aaaacataac aaatgtgttg gtgtctccca 150720 atgtattgct agattettac ccaagagcat tatcetggtt agggtttggt ttggttttgt 150780 tttgtttttt aatgtttgcc acaactaac actagatgtt agttctttca tcaagtgagg 150840 agagtagaag aaaagtccag aactctgaaa caccttttca aaagtttttc aagccatgat 150900 gitigcaagt taaaigctci gttatgiaag caatataatc agtitttatt aaigtaacat 150960 151020 151080 agtetegete tgttgeecag gttggagtge agtggeacga teteageteg etteaacete tgeteecagg tteaageaat tettetgeet eageeteetg agtagetggg attataggea 151140 151200 cctgctacca tgcctggctg atttttatta ttttagtaga gacaggtttc accatgttgg 151260

-95 of 185-

ccaggetggt	cttgaactct	taacctcagg	tgaatcaccc	acctcggcct	cccaaagtgc	151320
taasattaas	ggcatgaacc	aggatagaga	gggaaataag	accatttta	atotaaaatt	151380
	tgtacattca					151440
atgaagaaat	gggtgcaagg	aaatactqat	gaggtaaatc	ctacctttag	qataaaaaqa	151500
tttctctttta	taagtgccac	cctcatotaa	gtgaggttta	aaattttcct	tttctttagg	151560
tecengerea	caagegeede		9094990004			
	aagcagcatg					151620
ataatccctt	cttaacatct	aacaattgcc	tggtagtagc	agtgaaggta	tetteagtea	151680
	ccactgaagg					151740
gaggeragga	ccaccgaagg				5045504004	
	tgtagatcaa					151800
agtagtggag	gcttgctttt	ttaatagtta	attaagtaca	ttgagagatg	ggaggtgaaa	151860
	gttttatttt					151920
						151980
	tggaagacag					
	acatgggaat					152040
catttottaa	gagcactgag	tatqtqcatc	tcgatccatc	taatqaataa	ccattatcac	152100
	tattttcttt					152160
cagectadat	Laccecce	aggeeeagga	agagecagee	cggaagaccg	-t	
	attatgcagc					152220
aaggatgact	tcgttttgtg	taaactaaaa	agtattattt	tccaggtgta	aaaataaaaa	152280
agaacataag	gggtttcttt	gcctttgaag	gattaactgc	tatagggatt	accttcttat	152340
						152400
	tagaaaattg					
	gggaaaccat					152460
gttaaatatc	aaagttcagg	ccaggtgcag	tggctcacgc	ctgtaatccc	agcactttgg	152520
						152580
	cgggtgaatc					
	tcttagccgg					152640
ctgaggcagg	agaatcgctt	qaaccaqqqa	qqcqqaqqtt	qcaqtqaqcc	gagatcacac	152700
cactgcactc	cagcctgggc	gacgagcgaa	accccatttc	222222222	tcaaagttca	152760
eaccycacce	tttacataa	3455455544	taaggtagga	~~~~~~~~	acatagagaa	152820
gagageteaa	tttgagtaga	agetgtagga	LaaggLagCa	gaaaagagga	agecgeedag	
aaagaaagcc	gtagagatat	ttagagagat	tcccatggat	ccttggccta	ggagtgatet	152880
gtatatgtgt	ggggtgaaaa	cacatatata	caggtagaga	acccccaga	aattagtagg	152940
	gctggaacat					153000
gragagagac	ttagtaatac	acaaggcatt	gggtagtgte	tteaeagagg	ttatgeetta	153060
ctactgaaga	taaattagtc	ctagagtaca	agcacctgaa	ccaagtttca	aagcaaattt	153120
	aaattaccta					153180
				-		153240
	aaattcagca					
gcgcagtggc	tcatgcctgt	aatcccagca	ctttgggagg	ccgaggcagg	tagatgacct	153300
gaggtcagga	gttcaagacc	agcctggcta	acatggtgca	accccqtctc	tattaaaaat	153360
	agccaggcat					153420
						153480
	ttgcctgaac					
gcactctggt	ctgggcaaaa	agagcaaaac	tcaggctcaa	aaaaaaaaaa	gaatgtctga	153540
cotcaatcac	aaattaccaa	gcatgacatg	aagttgacct	ataaccagga	gaaaactcaa	153600
	cagacccaga					153660
	taaatattaa					153720
aatcccagca	ctttgggagg	ccaaggtggg	taggagttca	agaccagctt	ggccaatatg	153780
	ttctctacta					153840
						153900
	ctatatggga					
ttgaggttgc	agtaagccga	gattgtgcca	cttgtactcc	agcctggaca	acagagtgag	153960
actctgtctc	aaaaaaaaa	aaaaaaagt	taaagaaaac	aagagtataa	tgagaaaaat	154020
	tttaaaagaa					154080
	cottonation	chatataata	aaaaaaattt	-t-cacacacac		154140
	ggtagctcac					
atcacctgag	atcggtagtt	caaggccagc	ctgaccaaca	tggagaaacc	tcatctctac	154200
taaaaataca	aaattagctg	aacataataa	cacattacct	gtaatcccag	ctacttqqqa	154260
	ggagaattgc					154320
	tccagcttgg					154380
aaaacagtag	actcqaaqaa	ctagctgagt	ttttctttac	tttaggcagt	aagtgtgacc	154440
	gactacttta					154500
						154560
	aaaagaaaaa					
agtcctaggc	ctgcgaagga	atactcattc	tctttatcct	gtgttgatac	ctctctgctt	154620
caacctccaa	ctcgacattt	gcctatagga	tqtacttqqa	cattcagcat	aaactacctc	154680
	tgaattgctt					154740
attactactac	2544		-basses		333400000	
	atttgtccgc					154800
gtgtgtcttt	accatccctc	ttgaatatgc	tctagggtta	attcctagaa	gtagaattac	154860
tctattqaaa	attggcaata	tttttcattc	taatatctat	taccaacata	ggaaagcaag	154920
	agtccttgtt					154980
tgttcactca	tattttaaca	aggaaaatta	caatatttta	cctcacaaaa	ttgtagtcag	155040

-96 of 185-

cttctggctg tcttaaactc tggtatatag taaacactaa gtgttggtgt ccatccttaa 155100 tttgtaataa taggtcactt gttagagaaa tgcaccttac cattttcttt tctttcttt 155160 tttcagttat gactcaaaac ttgagataaa ggaaatctgc ttgtgaaaaa taagagaact 155220 tttttcctt qqttqqattc ttcaacacag ccaatgaaaa cagcactata tttctgatct 155280 gtcactgttg tttccaggag agaatgggag acaatcctag acttccacca taatgcagtt acctgtaggc ataattgatg cacatgatgt tcacacagtg agagtcttaa agatacaaaa 155340 155400 tggtattgtt tacattacta gaaaattatt agttttccaa tggcaataac ccatttatga 155460 gagtgtttta gcctactgga atagacaggg accacatcct ctgggaagca gataagcata 155520 155580 gaactqatac ttgatgcaca ctcgtagtgg taactcatcc ctaatcagca ttgtaaagca ggtgccagag gtggtttgct ttgtccttcc aaagcaggtg agtcagcccc accgagagcc 155640 aggeagettt gagtggeage gtggtgetag eagetteage ggaacagggt gagagttaat tatgeagtet tettgacage ggeattaatt tggaaggaaa etgacaagte atgggteaag 155700 155760 tttcagtgac ttcctccttc ctctgatggc agtatatagt tttcacattt taattcctcc 155820 tectgagatg cactataett aaaaceatte teteceetge taacagaagg gtgtgaatet ggtttaettt gagcattagg atttgeeet ttggaattet geactecagt taettaaett 155880 155940 156000 tcccttcaga atacatgtgg aaagaaagaa agaaatagcg atgactccac ttttgcccct 156060 gagcaggatg actggggaga gagaaacatt tgactttgac tgcctccccc attctttgct 156120 gtgagctgga aagtgtgcag ttggtcgtct ttcttctcct ttctttagga tagtaagaga 156180 ctcactcact gcacttctgc tcagttggct tctgcatcgg gatcacacag ccatcagcag 156240 gactgcccag ttggtgagca cactccattg accacgtggc gccagcgctt cctcaatgca 156300 catgattgag aggaaagaaa gttctcttag atgttactgc ttttgctcag actttgcaaa aaaaaaaata tatatatata tgtataaata tataattatt aatcactttt gtccttgaga 156360 156420 aagtettgaa tgaacagaga atttatteea ttgcaatatt tgattgtata gaggeacact 156480 156540 gtitcatcga cagaagaagc aaaaaggctt tgtgtaagtt tttggtacta tgtaccacct ctgttattct tttaaagctg aagtattcat gtacttaaac catattatat ttaattgtgt 156600 ttgattttaa aatatatata tatgaattet atttaaaatt gtgteaaett tetgetttea 156660 gggcatttat ggctcttctg ttgaaatata ttgatctttc caaatatttt catttgcttt 156720 156780 ctaaaaaccc agaacatgag ccactactgg actttgcctt gtgtttgaag tgtatggcat aaacccaagg titttattag tcatctatgc tgtgattaat tcattttgtt cttttaacaa 156840 156900 aatattteea teeaetteae attgetteaa tetttaacag aaaageaata taaaggttat agaataaaat gtggttttgg gcaactcttg ctgcctctgc atgttttgga ataacaattt 156960 157020 ctacaagact ctaggctgtt taaactagtg ctttcagtta agataaattc taatcatttc tttgtatata cattitgige ttetgageta gagatgeeaa giagttgtaa aetgettata 157080 aagagaatag cagcaaattt gagactcggc tactttttc tgccccacct gctttgagac 157140 157200 acagaagegg agtgtggeee gaaattatta geeagattta atatttgate taaagtaggt 157260 ccttgtactc attttaaagt tggaatttga ttcctccaac attgagcacc caccatgttc caggetetgt geattgtgee cacaaaataa gatteeetgg tggagttttt atgggtteaa 157320 ataatcagtt gaacaccett catetttate atgttgttga cattgacaca aattgtttaa 157380 157440 aaagaaaaga tattagagag aaagtggtac ctttgtaact tgatgtgtct tcatcattcg gtaagatttg atgaaagtaa aaagcaaatg tcagccaaat ccagtgaaca gcaataaaac 157500 agggagtaac ttittataac tttttctact tggatttcaa cattcagtag agcttttcga 157560 157620 aatgtaagta gtttacagta ctggaggttt gactagttca gtaggaattt ggaggggaag qtcattctga attgtaacaa agtacaaact tctttgctgt tttatttaag tactgagage 157680 taagcacctg atgaagtgac tgacctctct ccagtgacag tgtttgggta cctgcctgac ttcaggagtg gggtttatgt ttctacacag tgaccttttc tctcgccctc tcctccctct 157740 157800 tgcccacaca ccagttgatt ggacctgggt tgaactcctg atccagacag gcccaagaca 157860 gttcttaatg ttaagaattt tggggccggg cacggtggct catgcctgta attgcaacac 157920 tttgggaggc cgagacaggc ggatcacttg aggtcagggg ttcgaggcca gcctggccaa 157980 158040 catggtgaaa ccctgtcttt actaaaaata caaaaattag ctgggcatgg tggcgcacgc ctgtaatccc agctacgtgg gtggctgaga caggggaatc gcttgaacct ggaggcggag gttgtgcaat gagccgagac cgtgtcactg cattccagcc tgggtgacag agggagactc 158100 158160 158220 tgtotocaaa aataaaaata agaaaaagaa ttttgggota ggtgcagtgg ctcacgootg taattacago attittggaag goocaagatg ggoagatoac tigaggacag gagttogaga coagootgga caacatggtg aaactocato totactaaaa agacaaaagt tagooagatg 158280 158340 158400 tggtgatggg cacctataat cctagctcct cgggaggctg gggcaggaga atcacttgaa cccaggaagc agagattgca gtgagccaag atcacatete tgcaetecag cetgggcaac agagcaagac tetgteteaa aaaaaaaaga atttggccag gegeagtggt teaegeetgt 158460 158520 158580 aatcccagca ctttgggagg ccaaggcagg cagatcacga ggtcaggaga tcgagattgt cctggctaac atggtgaaac cctgtctcta ctaaaaatac aaaacattag ccgggtgtgg 158640 158700 tggtgggcac ctgtagtccc agctactagg gaggctgagg cagaggaagg atgtgaaccc 158760 aggaggegga gettgeagta agecaagate gtgecaetge actacagtet gggegacaga 158820 gigagactec gteteaaaaa aaaaaagaat ttiggeeggg tgeggtggea catgeetgta

-97 of 185-

	atcacagoog	tttaaaaaa	caaagtgggg	ggattaggtg	>~~+ ~~~~~	ttassassass	158880
			caaagtgggc				
			ccctgtctct				158940
			aggctgaggc				159000
			gtgccactgc				159060
	aaaaaaaag	aattttgcat	ggggaaggag	agatactgtt	caccatctgg	aatggtgctt	159120
	ggatgtggca	cttacaaaat	caggagccag	cactgcatgg	acaaacagaa	gcatgtgggc	159180
	ctgagatagc	aggtaccttg	ataaccctga	agacatcctt	ggtttctgca	tctattcctg	159240
			ttaatctgtc				159300
	ttttttgaga	tggagtttcg	ctcttgttgc	ccaqqctqqa	gtgcaatggc	acqatctcqq	159360
			ccaggttcaa				159420
			caccacacct				159480
			ctggtctcga				159540
	gacctcccaa	agtgctggga	ttacaggcgt	aagccatggt	accognicto	ttttttatt	159600
	ttttgaaacc	agteteaaet	gagtttttt	aattacatca	accoggettg	gctaaaatac	
							159720
			taatgattat				
			tctttagtaa				159780
			atggagctaa				159840
			agaagtccct				159900
			catgcttctc				159960
•			taaacccaga				160020
			aatttttaca				160080
	ctaggcaagg	tctctggcct	tgtaaaaccc	ctcaaggtta	caactttggt	ggcccacact .	160140
	aatagttacc	cactgaggcc	ctctccgggt	gaacattgag	cactagagga	agcccctctg	160200
	cttgggcagg	actgggcgtg	gtgcagagta	ggagcggtga	tactgtggat	tctgggcagg	160260
	tggagatggc	cagtgatgtc	caataaagga	cactggaggg	agcagtgtga	gtaaaggccc	160320
			gagggttgct				160380
	tgggtattcc	tgccttagta	actttatgta	aacaagtatt	tcctcaqtct	gttcctctca	160440
			tcagaatgtc				160500
			tctccttccc				160560
			gggcaaggag				160620
	gagctgggat	ttaccaagaa	gcaaatgaga	gacgaggatt	gcaacaactg	toccatttcc	160680
			tatattgact				160740
			acagtaagaa				160800
			cacttctttc				160860
							160920
	agageaeeee	taadtaacea	taattatgta gcactgttta	Gaggagaga	ggaaatat	ananattaga	160920
	ggcaccttg	agattagatt	gtattgaaga	cagggacaca	gyaaggaaca	aaaacctgca	161040
	staataats	tagacagaaca	ctattgaaga	ggcaatggaa	gctgggatag	tagetadact.	
	acyclygial	tastassata	cagtggctca	caccigcaat	cccagcactt	tggaggccaa	161100
			aggagatcga				161160
	tetetaetaa	aagtaaaaa	aaaaattagc	caggtgtggt	ggcgggcgcc	tgtagtccca	161220
			aggagaatgg				161280
	gccgagatgg	caccactgea	ctccagcctg	ggtgacagag	cgagactctg	tctcagaaaa	161340
			tgattcaaga				161400
	tacccaccaa	ggtctactgg	aaaacatcag	gctctcctgc	tatagaccca	tagggagagc	161460
	tgcagccgag	agggggagct	gaagagaagt	gccccttctg	tġtcctgtca	gcctcatcct	161520
	tccgcaagga	ccagttgctg	tgccactcca	ttcacttgct	gcaagactgg	aggtttttcc	161580
	tcaggtgttg	agcacctggt	ttacaagatg	tcagcatctt	gatgcctgag	accatcaagg	161640
	caagtctctg	aacagggctt	accttagagt	aaggettaga	agaggccgta	aagtcagtct	·161700
	cagctccgtg	gctctgcaga	gctttgggac	atgtgaattc	ttaaaaacaa	gactattgta	161760
	cagttactat	atgcatgcag	tataaaatta	taaccttgga	aaatcctagc	tagctgttga	161820
	gctaattcca	taaagtaatc	agctcctgag	ttctgcagtg	gtaataataa	tcagcataat	161880
	gagtaaacac	tgtgtgcc	aggcagcgtc	tcatttgatc	cttotoataa	tcttqtaaqt	161940
	actgattttc	tcccttctt	aaacaaagtt	tttttttt	tttagagag	ggtctcacta	162000
	tgttgcccag	gctagtcttg	aattc				162025
	··· '						

<210> 15 <211> 18 <212> DNA <213> Artificial Sequence

<220> <223> Primer

-98 of 185-

```
<400> 15
 actgagcctg ctgcataa
                                                                                       18
 <210> 16
 <211> 16
 <212> DNA
 <213> Artificial Sequence
 <220>
 <223> Primer
 <400> 16
ggcgcacgcc tccacg
                                                                                       16
 <210> 17
 <211> 162025
 <212> DNA
 <213> Homo Sapien
 <220>
 <221> misc_feature
 <222> (0) ...(0)
 <223> Nucleotide sequence of chromosome 17 containing
        the genomic sequence of the predominate allele of
        the AKAP10 gene
<400> 17
gaatteetat tteaaaagaa acaaatggge caagtatggt ggeteatace tgtaateeca
                                                                                      60
geactttggg aggeegaggt gagtgggtea ettgaggtea ggagtteeag geeagtetgg
                                                                                      120
ccaacatggt gaaacactgt ctctactaaa aatacaaaaa ttagccgggc gtggtggcgg
                                                                                      180
gcacctgtaa tcccagctac tcaggagget gaggcaggag aattgcttga acctgggaga
                                                                                      240
tggaggttgc agtgagccga gatcgcgcca ctgctctcca gcctgggtgg cagagtgaga
                                                                                      300
ctctgtctca aaaagaaaca aagaaataaa tgaaacaatt ttgttcacat atatttcaca
                                                                                      360
aattigaaat gitaaaggta tiatggicac tgatateetg titeattett tatataatea tiaagtitga aatgtataet tgeactaeta acacagtagi taatettagi eetacaagti
                                                                                      420
                                                                                      480
actgetttta cacaatatat tttegtaata tgtatgeact ggtgtttatg taegtgttta tgtttatate tgttaaaatt ageagtttee atettttet attttgtace ateacateag
                                                                                      540
                                                                                      600
tīcagaagga tīgacagagc aaaaīgattt gatgaagtat aaaagīcaca tggtgagtgg
                                                                                      660
cataaataca actotgaaca attaggaggo toactattga otggaactaa actgcaagco
                                                                                     720
agaaagacac atatcctata tgtcaagaga tgtaccaccc aggcagttaa agaagggaag
                                                                                      780
tacacataga aagcacaatg gigaataait aaaaaattgg aatttatcag acaciggati
                                                                                      840
catttgctcc taaagtcaga gtcctctatt gtttttttgt ttttgtgggt ttctttttaa atttttttat tttttgtaga gtcggagtct cactgtgtta cccgggctgg tctagaactc
                                                                                      900
                                                                                     960
ctggcctcaa acaaacctcc tgcctcagct tcccaaagca ttgggattac agacatgagc
                                                                                    1020
cactgagccc agcccagacg ctttagcatt tatgaagctt ctgaaatagt tgtagaaacc gcataagctt tccatgtcac tttcaaagtt tgatggtctc tttagtaaac caaccaagtt
                                                                                    1080
                                                                                    1140
attecteaag ggcaaaataa cattteteag tgcaaaactg atgcaettea ttaccaaaag
                                                                                    1200
gaaaagacca caactataga ggcgtcattg aaagctgcac tcttcagagg ccaaaaaaaa aggtacaaac acatactaat ggaacattct ttagaagagc cccaaagtta atgataaaca
                                                                                    1260
                                                                                    1320
ttttcatcaa agagaaaaga gaacaaggtg ttagcaaatt cctctatcaa ataacactaa
                                                                                    1380
acatcaagga acatcaatgg catgccatgt ggaagaggaa gtgctagctc atgtacaaac cagtagataa tttcaacttg ctgccgaatg aaacctcttt gcaaggtatg aatcagcact
                                                                                    1440
                                                                                    1500
teteatgttt gttttgtttt gtttttagag acaggeeett getetgteac
                                                                                    1560
acaggetgga gtgcagtggc acgatcagag etcactgcaa ectgaaacte etgggetcaa
                                                                                    1620
gggatectec tgeettagee teccaagtag etgggaetae aggeecacea tgeecageta
                                                                                    1680
attttttaaa ttttctatag agatgggatc tcactagcac ctttcatgtt tgatgttcat
                                                                                    1740
atacaacgac caaggtacaa tgtggaaaag ggtctcaggg atctaaagtg aaggaggacc agaaagaaaa ggggttgcta catagagtag aagaagttgc acttcatgcc agtctacaac
                                                                                    1800
                                                                                    1860
actgctgttt tcctcagagc agagttgatg atctaaatca ggggtcccca acccccagtt
                                                                                    1920
catageetgt taggaacegg gecacaeage aggaggtgag caataggeaa gegageatta
                                                                                    1980
ccacctgggc ttcacctccc gtcagatcag tgatgtcatt agattctcat aggaccatga
                                                                                    2040
accetattgt gaactgagea tgeaagggat gtaggtttte egetetttat gagaetetaa
                                                                                    2100
tgccggaaga tetgtcactg tettccatca ceetgagatg ggaacateta gttgcaggaa
                                                                                    2160
```

-99 of 185-

aacaacctca gggctcccat tgattctata ttacagtgag ttgtatcatt atttcattct 2220 atattacaat gtaataataa tagaaataaa ggcacaatag gccaggcgtg gtggctcaca 2280 cctgtaatcc cagcacttcg ggaggccaag gcaggcggat caccgaggtca ggagatcgag accatcctgg ctaaaacggt gaaaccccgt ctactaaaaa ttcaaaaaaa aattagccgg gtgtggtggt gggcacctgt agtcccagct actcgagagg ctgaggcagg agaatggtgt 2340 2400 2460 gaacctggga ggcagagctt gaggtaagcc gagatcacgc cactgcactc cagcctgggc 2520 gacagagcga tactctgtct caaaaaaaaa aaaaaaaaa aaagaaataa agtgaacaat 2580 aaatgtaatg tggctgaatc attccaaaac aatccccca ccccagttca cggaaaaatt 2640 ctcccacaaa accagtccct ggtgccaaaa aggttgggga ccgctaatct aaataatcta 2700 atcttcattc aatgctaaaa aatgaataaa cttttttta aatacacggt ctcactttgt 2760 tgcccaggct ggagtacggt ggcatgatca cagctcactg tagcctcaat cacccaggcc ccagcgatcc tcccacctaa acttcctgag tagctgggac tacaggcacg caccaccatg 2820 2880 cccagctaat ttttaaattt tttatagaga tgggggtctc accatgttgc ccagactggt 2940 ctcaaaccct gggctcaagt gatcctcct caaactcctg gactcaagtg atcctccttccttggcctcc caaagtgctg ggattacaag catgagccac tgtacccagc tggataaaca 3000 3060 ttttaagtcg cactacagtc atggacaatc aggcttttca acatgcagta tggacagtga 3120 gtcccagggt ctgcttttcc atactgaaat acatgtgata ctaaggagaa aggtgctcgc 3180 aaggatattt aaaatgaaga atatttaaaa tgaggaaaaa actgtttett catgaetttg 3240 ataaggetga taaagaceat ttetgtgate teaggtgatt cacteaagta gtatatttea gtaateatta tetggaacag cetgaatett aaceaaaata ceatgattt ttaatgetgt. 3300 3360 tatgatacet tgatgatatg accaaactge aatgtaggea getaaatete caegagttig 3420 acticcccga gagtigacag ttttcttcac aaattaaaga aatatatttt ttgatacatg 3480 attggcatat ttaaaaacta cactgaaatg ctgcaaaatg atataaagaa acattttcca 3540 gaatcaaatg caatcaaaga gtggattagg aatctactca ccattatcaa ctaaatagaa acacttggac tgggtgtggt ggctcacatc tgtaatctca gcactttggg aggccaaggc 3600 3660 aggtggattg cttgaggcca ggagctcaag accagcctga gcaacatagc aaaactctgt 3720 ctctacaaaa aaaaaaaaa attaaccagg catggtggca gatgcttgta atcccagcta 3780 ctctggaagc tgaagtagga ggactgcttg agcccaggag atcaagactg cagtgagccg 3840 tggtcatgct gcgccacagc ctgagtgaca gagagagacc ctgtctcaaa aacaaaaaca 3900 3960 4020 agetetgeet ceegggttea egecattete etgeeteage etecegagta getgggaeta 4080 taggegeeeg ceaceaegee eggetaettt tttgeatttt tagtagagat ggggttteae egtgttagee aggatggtet tgateteetg acetegtgat ceacetgeet eggetteea 4140 4200 aagtgctggg attacaggca tgagccaccg cacccggcca acctttctgt tttttagttt 4260 gatatgettg ttaactcage agetgaaaga atgetgaaag tggeetteag taaaaaaatt teactagaat etetacatee atatttaate tgaatgeata teeagattga teagttagag 4320 4380 caaaaacact catcatt cctgatgacc tctaattctg gtttcggctt tctatttcaa 4440 tggaaacaga ataaggaaag aaatggaagg gctctggaaa tttgtcctgg gctatagata ctatcaaaga tcaccaacaa taagatctct cctataaata taaaacaagt ataattaatt 4500 4560 ttttaattat tttttctct tcagaggatt ttatttcaag ataaaacata acttctaccc atactattga ttccaaaggt tagaaaaagt gtttttcctc atcttatcct tcaaagagt 4620 4680 cacagcaatg caaacatcta taaaatgcct ctgcataatt gtcagaagct atagtccaga 4740 aatcattgaa aatgetttte cattttaage ttaggtgagg tgtettagga aaceteatg acaacttact etatttattg ggaggtaaac teccagaete teccagggte teetgtattg ateteattt ttaggettee taateeettg aageacaate gaaaaagee tggatetet 4800 4860 4920 ttctgcacat atcatcgcgg aattcattcg gcttccagca agctgacact ccatgataca agcggcctcg cccttctccg gacgccagtc cttgctgcgg ttagctagga tgaggggttt 4980 5040 gctgggcttc agtgcaggct tctgcgggtt cccaagccgc accaggtggc ctcacaggct 5100 ggatgtcacc attgcacact gagctcctgg caggctgtac caatttttta attatttaat attattttt aaaattatgg tgaatatttt ggtattctgc tctaaaatag gcccataaat 5160 5220 gcacagcaga tatetettgg aacceacage tttecactgg aagaactaag tatttttett 5280 ttaaagatgc tactaagtct ctgaaaagtc cagatcctct acctctttcc atcccaaact 5340 aagacttgga atttatgaga gatctagcta acagaaatcc cagacacatc attggttctt 5400 eccagagtge agtectecta aagaggetea geeetaagea ggeeeetgea ecaggagggt 5460 gggtctgaga cccacatagc acttcccaag gtgcatgctc cagagaggca ctgaaacagc tgagcacaag cctgcaagcc tggagaactc tcacagtcag aacggaggg gcccagtggg 5520 5580 actaacataa agagaaaagg gaacacagag aaatggatgg caccaacaac cagcaaagcc ttcatggcca atgaaagcat cagtgacggg gccagaaccc tcatccccaa agactcttca ctgcctttag tgaaaaacaa tggctagaga gtgaagttat gatcatgtat agagaggtaa 5640 5700 5760 agttacattt ttatattetg actetgetaa tgtgaaatte eetatetget agaetaaaag 5820 tttcagacac cctgttcaaa tatcccatta gttgctagag acttaaaatg aacagaacgc acattgtcag gatgactatt accaaaaaat caaaagacag caagtattgg tgaggatgta 5880 5940

-100 of 185-

gagaaactgg	aacttttgtg	cactotttat	gagaatgtaa	aatggagcag	ctactataaa	6000
aaagagtatg	caggttcctc	aaagagtaaa	accaagatgt	ggaaacaact	aaatgcccat	6060
cactegatea	aggggtagac	aatatgtggt	atatagatag	catocactac	tattgagggt	6120
						6180
	aaaaggaaat					
	aataaggcag					6240
ataccaaaaa	tagacaaatt	catagaatca	aagagtacaa	tggaggttac	ctggagctgc	6300
agggcgggaa	acgaggagtt	actaatcaac	gaacataacg	ttgcagttaa	gtaagatgaa	6360
taagctctca	agatcagctg	tacaacactg	tacctagagt	caacaataat	gtattgtaca	6420
cttaaaaatt	tgttaagggt	agattaacaa	atgtagtaga	tccacaaatg	taattaaata	6480
	agtaaaataa					6540
	aaaccctgtc					6600
	ggctgaggtg					6660
						6720
	accactgtac					
	gaatatcaaa					6780
	gagcatcgac					6840
	aaacaatgac					6900
actgcagaag	aaaggaggaa	tgcctaactt	tcagaaaata	gagaaagcgt	caaacagttg	6960
gtgaaagcct	tccaaaacta	gagagaactg	cacacaccaa	atcacagaaa	gaagaaaagc	7020
cataggagat	tctgggaccc	accogctatt	tttgatggct	gaacaccctg	ctgcaggaga	7080
	ggaaagcatg					7140
gatgactggg	cttgattaac	totagtcaat	ggggacaatt	caatcaaaga	agaaagatgc	7200
	attttagaat					7260
						7320
	gcaagaaact					
	gtgactagaa					7380
					ttgctttccc.	7440
	aatacggaag					7500
tcactgacaa	ccatttagca	gcttaaaaca	caaaggctta	tctcccagtt	tctgtgggcc	7560
aggaatctaa	gataggctta	gctggctggt	tctggctcag	agtttctcaa	gaggttgcaa	7620
	agctggggtt					7680
ccaaggagtt	cactcacctg	cctgacaagg	cagtactaat	tattaacaaa	agateteaat	7740
tcattgccaa	gtgagcctct	ctataggatt	gctggaacat	cctccccatc	taacaattaa	7800
cttctctcac	catgagtgat	ctgagagaga	geoggaaaaa	daadccaca	tattattat	7860
actcctactc	ctaacactat	ccaugugugu	ctaacactct	gaagecacag.	ttattagatt	7920
						7980
	ggaactaagc					
	atcatcacac					8040
	acattcaaat					8100
	tagaggaaga					. 8160
gtcagattcc	ccctgaaaag	tgagccatga	aaggaacttt	aactattgag	ttagaggtca	8220
gagtaggaaa	tttcggtgga	attcttttt	aaagaaagga	accatataag	catgttttga	8280
ggtagaggga	gaataaatca	gtagacaggg	agaggtaaaa	aacataaatg	ataggggata	8340
gttgacaaag	gtcttggcag	aatcccttac	ccattgactt	qqqqccaaqa	gagggacact	8400
	agggataagg					8460
	acgcataggt					8520
ttgagattct	cacctcaaat	ccattttatt	attacctata	ccttcctacc	ttctctttt	8580
actacataca	gactgctgtt	ttatattat	gacatatta	aggtttgagg	atteteeat	8640
atctactaca	ctcttcccaa	acctatataa	agtagatagt	aggetteage	accetggeac	
	ctgttcccaa					8700
	gtatctaaga					8760
	agtgaccctg					8820
tggtctagga	gaatctcagc	ctgggcctct	agtagtatgg	ataaggcgtt	aaggtatctt	8880
tgaaccagag	tctgtcatat	tcctcaatgt	gggacagata	aaacagtggt	agtgctggtg	8940
tttctgagct	agaactctgg	tttttggtct	agattctttg	atgtatgacc	tttcagaggt	9000
	gttctaatac					9060
caacaaaaca	fgaccaactg	tagatgaaca	traaactato	acaattcato	gaaatgaata	9120
Cagtaatacc	tgcggttccc	ccattttacc	artcactatg	atascettta	gaaaagaaaa	9180
ctatttaacc	gtgcttttgt	taaaacctac	catchtacta	greatest	255000000000000000000000000000000000000	9240
	ggagaaactt					
						9300
	tatttataaa					9360
Ligaagttgt	cacatttaat	ccttaataac	ccactatgag	caggtattc	ttctctcccc	9420
	tggggaaatg					9480
cctgcatgta	gaaaatctga	gatttgtaca	ggaacgtatc	aaactctgaa	gtccatgctt	9540
ctattttccc	atgctgcctt	tctaataaaa	ggtaactaat	gctactggat	gctgccccca	9600
aagtgagtca	ctttcacccc	accctacttg	attttctcca	taaaactaat	cacatcctga	9660
caacttattt	attgctgatc	tcccccacta	gattataaac	tcaataaaaa	caagatcctt	9720
			-		-	

-101 of 185-

gtctgctgaa	a tatcagtacc	taaaacqctq	tctagcacag	agcaagtaat	taatatttqt	9780
	a aataaaggaa					9840
	cattttaaaa					9900
ttttt	. cattettaaaa	gaaagcacac testees	aacaaaccca	ggacagaacc		
-t-t-taaaga	a aataaccaag	tyctagetyg	geacaguage	coacaccigi	aaccccagca	9960
ccccgggagg	g ccgaggcagg	cagatcactt	gaggtcaaga	gttcaagacc	agcctggcca	10020
acatggtgaa	acctgtčtct	actaaaaata	cagaaattat	ccaggcatgg	tggcaggtcc	10080
ctgtaaccc	: agctactcag	gaggctgagt	caggagaatt	gcttgaaccc	aggaggcaga	10140
ggttgcagtg	ggccaagatt	gcaccactgc	actccagcct	gagtaacaaa	gcaagactct	10200
	gaaggaaaga					10260
	gaaagaaaga					10320
	aagaaagaaa					10380
	: atgcacgcta					10440
acadacacac	gcttctataa	CCCCaaaacc	gracertaag	aagttcctct	Ctaccagete	10500
acycatycat	tagttttcta	agagetacta	gtaacttttt	ccctggagaa	tatecacage	10560
cagtttattt	: aaccaaagga	ggatgcttac	taacatgaag	ttatcaaatg	tgagcctaag	10620
ttgggccagt	: tcatgttaat	atactccaga	acaaaaacca	tcctactgtc	ctctgacaat	10680
tttacctgaa	aattcatttt	ccacattacc	aaggagccag	ggtaggagaa	tatagaaaga	10740
ccacccaaga	atccttactt	ctttcagcaa	aatcaattca	aagtaggtaa	ctaaacacat	. 10800
gccctaacaa	tgaatagcag	attotoctca	gaagaatgat	ctacaacatc	ttactqtqaa	10860
	, aaatattcca					10920
	tttaagcct					10980
cacacators	ctagaccaag	aattaccttc	aggeetgaea	acceptates	tataccataa	11040
atataatat	ccagaccaag	aaccaggccc	aaacacacac	aggaacttaa	catacyataa	
acctagract	ccaaaggaac	caacaaacyy	tgttcagaca	gcaggacagg	catcaggaaa	11100
aacacagttg	ggcaccctac	CETACECCEA	acaccaggag	taactgaagg	agcaccaaat	11160
	tttaattata					
attacatagg	tatacatgtg	ccatgttggt	gaggagcacc	aaatatttaa	aagaaaaaa	11280
ttggccaggg	geggtggete	acacctgtaa	tcccagcact	ttgggaggcc	aaggtgggca	11340
gatcacctga	ggtcgggagt	tcgagaccag	cctgagcaac	atggagaaac	cccatctcta	11400
ctaaaaatac	aaaattagcc	aggcatggtg	gcacatgcct	gtaatcccag	ctacttqqqa	11460
	ggagaatagc					11520
	ctgggcaaca					11580
	agaaaagaaa					11640
aatcctccc	ctcttaggat	aaaaagaaaa	tataatataa	ageagaagaa	attataaaaa	11700
	ctacatacaa					11760
	catagctgaa					11820
	tacacataaa					11880
caaaataaaa	atgtgacagg	taatgaacag	gtagttcaca	gagaatacaa	atggctcttc	11940
ggcacataag	atgctcagac	tgacttttac	·ttatttattt	tttgagagac	agggtctcac	12000
gatgttgccc	aggttaggct	caaactcctg	ggctcaaatg	atagtaccag	gactacaggt	12060
	gcacctggct					12120
ttcaaatcta	ttttacctat	tagaatggca	aaaatttgaa	aaacttcaaa	catcatcato	12180
ttqqtqaqaa	tgtgaggaga	ctggcactct	cattttttgc	tgatagcata	tatatactga	12240
	ggaaagcaat					12300
	ttccactcta					12360
ctocoacta	agggacaggg	ggaaagagaa	atattattt	costasttas	gggttagggaa	12420
	tatatactgt					12420
gtctgggaat	tttttttt	Cttttctgag	acagggtete	actetgteat	ccaggctgga	12540
augecauggu	atgatctcag	ctgactgcag	cctcgacctc	ctgggttcaa	gcaatcctcc	12600
cacctcagcc	tcctgagtag	ctgggactac	aggcacgtgc	catcatgcta	atttttgtat	12660
atacagggtc	tcactatgtt	gcccaggcta	atgtcaaact	cctaggctca	agcaatccac	12720
ccacctcagg	ctccaaagtg	ctgggattac	aggcgtgagc	caccgcgcct	ggccctggga	12780
attcttacaa	aagaaaaaat	atctactctc	cccttctatt	aaagtcaaaa	cagagaagga	12840
aattcaacct	ataatgaaag	tagagaaggg	cctcaaccct	gaggaagaaa	cacaaaggct	12900
atttctgaga	caggaatttg	ctgaacaaaa	tcgagggaag	atgacaagaa	tcaagactca	12960
cttctcaact	gggcgcagtg	gctcacacct	gtaatcccag	cactttqqqa	aaccasaaca	13020
	gaggtcagga	gattgagacc	atactcccta	acacactggga	acceactete	13080
gacagatcac	3033000330	accedagacc	acaccagacca	acacagegaa	acceageete	-
gacagatcac	~~aaaaaatt	tagagetassa	ggcggcaggc	goolgraged	tagggagg	13140
gacagatcac tactaaaaat		Luuculdaac	ccaggaagcg	yagettgcag	Lyagccgaga	13200
gacagatcac tactaaaaat gggaagctga	ggcaggagaa	-55-5-5				
gacagatcac tactaaaaat gggaagctga tcacgccact	gcactccagc	ctgggtgaca	gagcaagact	ctgtctcaaa	aaaaaaaaa	13260
gacagatcac tactaaaaat gggaagctga tcacgccact aagactcatt	gcactccagc tctctagatc	ctgggtgaca ttgagccgta	gagcaagact ttcaaattta	tctcagctta	gtgagaggtt	13320
gacagatcac tactaaaaat gggaagctga tcacgccact aagactcatt aaagcaagga	gcactccagc tctctagatc atatccttcc	ctgggtgaca ttgagccgta ctgtgggccc	gagcaagact ttcaaattta tgctccttac	tctcagctta tgaaggaagg	gtgagaggtt taacggatga	13320 13380
gacagatcac tactaaaaat gggaagctga tcacgccact aagactcatt aaagcaagga gtcaaggaca	gcactccagc tctctagatc	ctgggtgaca ttgagccgta ctgtgggccc aaagcactaa	gagcaagact ttcaaattta tgctccttac caccattatc	tctcagctta tgaaggaagg tgatgaacat	gtgagaggtt taacggatga tacgtgaaga	13320

-102 of 185-

aaatggaata	taggaaatco	ataaaagtga	ttaaaaagat	gttagaggct	gaggcggggg	13560
			tggctaacac			13620
			gcaggcacct			13680
			gagacggagc			13740
			gagactccat			13800
			ctgctaattc			13860
			ccggaaaact			. 13920
aatctatagc	ttgaaagggt	ttagcatatg	ccaagaaaaa	tcagtagagt	ccaaccagca	13980
caagacacat	ctagcaaggc	tggtgattct	accaacacag	agaaagaagt	gggtgaccca	14040
taatgcggaa	aaaggcagac	catctgcagt	cttctccaga	acactggagt	ctgaagacaa	14100
aagaatgctg	cctactgagc	cagaagggag	agaaagtgac	ccaacacatc	tttaccaagt	14160
tagaatgtca	cgcattattt	aaaggctgca	aaagccatga	aagacatgaa	agaacacaag	14220
			tcatactcaa			14280
			tacttaatgt			14340
			aacatctctc			14400
tcagcacctt	tecetectee	cagtettate	ccctggagtc	tactctcaac	atagcagagt	14460
gaccacatca	acacccaagt	cagageete	cagtgcgcac	tootetacaa	acceptee	14520
			tgtgacgtgt			14580
catacactac	tasatagaa	taatataaat	caggaaggcg	natasttana	tettegeage	
						14640
			tecettacet			14700
			taccctattt			14760
			cttttattct			14820
			attacattgt			14880
			atttattcat			14940
gaacagggca	tagttcagag	tattcaatgt	tatcaatgaa	tgaactagca	gtagtaccag	15000
ttccagttag	gcacagaatt	aaatctaaat	agaattaaat	ctcatggtct	gggttaacta	15060
tggatagaaa	attagatata	attttaagaa	gcctagaaag	aaaaaattaa	taatgtaaaa	15120
ataatattaa	tttgataata	ataacaaaaa	ctctgccagg	cactgtggct	caaatctgca	15180
atcccagcta	ctcaggaggc	tgaggtggaa	ggatcacttg	agaccagagt	tcaagactca	15240
gcctaggcaa	cacggcaaga	aactgtctct	aaaaaaatta	aaacttaaat	ttttaaaaaa	15300
gaattctcaa	agcgtcacaa	aaactggaga	ttaaggtaca	ggaagtgtga	agtaatatta	15360
			aggtataacc			15420
cgataaactg	agaaagataa	gcatatette	caattaacag	agggggagga	aaagccagat	15480
			gttgaaaaca			15540
tcacctcacc	tgtgacctcc	cccagcccaa	aaaacactac	tgataaacag	ggtagaaaag	15600
			cacagtctca			15660
cacctggcca	accctgccaa	gtctgggctc	agtaggagga	acqtqctqaq	agctaggatg	15720
taccaactta	gacattctgt	gggatacaga	tgtccctgga	agggtcacac	catctcaaaq	15780
qcacctgtaa	tgcccactga	ttacaqccac	catatgtgag	agagaaactc	agggcactta	15840
gagagtataa	caagaacctt	atatcatcta	agatgaggaa	tcctcagccc	tocaaattaa	15900
ccaactcttt	agaacaactg	gcaaaacata	aatatccaca	acttttctt	cagtaattcc	15960
			acagcagata			16020
			agaaataatc			16080
tagatacata	agggtatgta	cccatcattc	aaccatcaaa	aagagtgata	tagatataca	16140
cagatggaca	taaaaagctg	tatattacat	gaaaacaaac	traagragra	acaggataga	16200
cttatgatag	tcagtatgag	ctaatttctq	gaaaaaaaaa	tetagtatat	acacacassa	16260
catctgaaag	aacadaaaca	aaactatcad	cagaatattg	acatotttta	ctaacttcta	16320
			gcaagaatta			16380
cacccacacc	aggatttatt	taaacttcat	gtttaaacaa	stastastas	aaayaaaacc	16440
ttettattea	tcataaaaa	20202000	catgcacgca	tataaataaa	aacaaaagag	16500
nettentana	toacaaacac	acacagcaca	tatttaatt	tgtgtgtgag	cacacccctt	
accigacaaa	taccatging	aatattttag	tctttccttt	taggttetat	ecctteacte	16560
aaaacycygc	Lacaaataaa	tgtaettte	atgtgccttc	tgcctaaacc	cactttaata	16620
taactttaca	gcccattat	cattatagtc	tcaaagctag	actcagcctg	aaactaccct	16680
ttcatttgga	accettatta	aaatgccaca	tacagetect	tcaaataaaa	acaaacccta	16740
ggacctgaca	ctaggettee	tttgttgcta	ctcataatgg	ccaagttctg	tgcttataat	16800
acatettett	ccattttatt	gctacatatc	caagggtttt	atatgttttt	cttattatat	16860
cttaattcaa	aacaccatca	cgctctttc	cagatgaaaa	taaggaaaag	aaattgagca	16920
actgactgac	ttaaaggtca	taaaactata	tagtagcaga	gtcagcaaaa	gaagaaacac	16980
acatctccca	agragaggct	gaaaaccagt	accattcacc	tccagggtga	gctatataca	17040
gattacaaag	tcaccttctc	taaatgttca	aactgaatcc	catacccata	ctttaccact	17100
acctcgtaag	aacagcctca	gatcttgtta	tagccttttt	tttagcatgc	tgaagccaat	17160
aaaatgcttc	ccattcagca	agagaaacaa	gttctgaaac	actgaataat	ctgcccaggg	17220
cctatgaaca	tttccactgt	gagaaatgtt	ctccactgtg	tggagaagat	ccttactctt	17280

-103 of 185-

	ctccacacag	gcagaacatt	agaaaaattc	ttggattcta	tgatgcacag	cttaggagtc	17340
				ttaaatcctc			17400
				tactctcctg			17460
							17520
				gtcacatgaa			
				agcagttgtg			17580
	ttcaatactt	tatetteect	tagaaaactc	ttctcccttg	gaaatttatt	tgcatttcta	17640
				ctccttgggg			17700
	ggactatgaa	atgaaaatgg	tgagtctggg	acatcccatg	ttgcccagaa	atcaaggaac	17760
				ggacctaaga			17820
				acatgacagt			17880
				caaaaggatg			17940
							18000
				aaaggaaatg			
				catgctaaaa			18060
				tttcacacca			18120
	ggaaggaaga	tgtgatcaag	cttcctgtga	ccccagcca	ggccccacaa	cactatgtgc	18180
	ctccttgtga	tgtgggagct	acacagcatc	gcccacacag	cttctcgcca	aaactgtttg	18240
	aagctaatca	caaqqqaaga	actggacagc	ttctgaccat	gagacgctcc	accagacaac	18300
				gcctctccaa			18360
				aaaagcaagt			18420
				ccagtaagtg			18480
							18540
				gaagggaag			
				gggttcactg			18600
	atctcagact	tggagctgaa	gcagcaggca	acttcaaaac	accaaggggc	acagattgaa	18660
				caaaggacca			18720
	gatggaacac	atttagacag	taactgccca	tttaccagca	ataactgagc	agggagccta	18780
	gacttccagt	cttataagga	cataccaaga	tacccaacac	ccccaccaaq	actgagtaag	18840
				gtaaggagcc			18900
				ccaggagtga			18960
				gtgacttaac			19020
							19080
				acagtgaaag			
				agggaggcca			19140
				accccattgg			19200
				gtaacaagct			19260
	acaatggtgt	tcaaaacagg	tttaaataag	gtctagagtc	tgataacgta	atacccaaat	19320
•	cqttqaaqtt	ttcattgagg	atcatttata	ccaagagtca	ggaagatccc	aaactgaaag	19380
				taagagagca			19440
				aacaggctgg			19500
				tggatcacaa			19560
				ctaaaaatac			19620
				gggagcctga			19680
				accaccgcac			19740
	aagacttcgt	cccaaaaaaa	aaaaaaaaa	aaaaaaagc	ctcaacaaac	aactacaaac	19800
	gtgcttgaaa	caaatgaaaa	aaaaatcttg	gcaaagaaat	aaaagatata	tattttggcc	19860
	aggtgcagtg	gctcacagcc	tgtaatccct	gcactttggg	aggctgaggc	aggcggatca	19920
	cctgaggtca	ggagtttgag	accagcctga	ccaacatgga	gaaaccccgt	ctctactaaa	19980
				tgcctgtaat			20040
				ggaggttgcg			20100
				agcaaaactc			20160
				atacagtaac			20220
				agtgaacttc			20280
				ctggccaaaa			20340
				aggaaggaag			20400
	ggagtgaggg	agaaagtctc	aaagacctct	gagactaaaa	taaaagatct	aacacttgtc	20460
	atcagggtcc	aggaaagaga	caaagatggc	acagctggaa	acqtattcaa	aaaataatag	20520
				taaacctata			20580
				aatacatcat			20640
				tgaaacaaca			20700
							20760
				taaggaagcc			20760
				acacaaaatt			
				ctcagataaa			20880
				aaggaagatc			20940
	atgaaagaag	gaatccagaa	acatcaagaa	gaaagaaata	acatagtaag	caaaaataca	21000
	tgtaattaca	ataaaatttc	tatctcctct	taagacttct	aaattatatt	gatggttgaa	21060

-104 of 185-

gcaaaaatta	taaccctqtc	tgaagtgctt	ctactaaatg	tatgcagaga	attataaato	21120
		acctcattga				21180
gggaaagtat	aggiciciac	accecacega	agiggiaaaa	Lyacaacacc	gcgaaaagcc	
acatacacac	acacacgtaa	gtatatataa	acacacgtgt	gtatatgtgt	gtgtatatat	21240
atatatacat	ataatgtaat	acagcaacca	ctaacaacac	tatacaaaqa	gataataacc	21300
aaaaacaatt	tagataaatt	gaaatggaat	totaaaaaat	attcaaatac	tctacaggaa	21360
		aaagaggagg				21420
aatggtagac	ttaagcccta	acttatcaat	aattacataa	atgtaaatga	tctaattata	21480
tcaattaaaa	gacagagata	gcagagttaa	tttaaaaaca	tagctataag	aaacctgctt	21540
		acacttgtaa				21600
		tccagaccag				21660
ctaaaaatac	aaaaaaatta	gccaggcatg	gtggcacacg	cctgtagtcc	caactactca	21720
ggaggctgcg	acacaaqaac	tgcttgaacc	cqqqcaqcaq	aggtagcagt	gggccaagat	21780
		gacagagtga				21840
						21900
		acatatgttg				
aaaacattaa	tcaaaagaaa	ggagtggcta	tattaataac	ataaaataga	cttcagagaa	21960
aagaaaattt	caagagacag	gaataaaagg	atcaagaaaa	gatcctgaaa	gaaaagcagg	22020
caaatcaatc	attctgcttg	gagattcaac	accetetett	aacaactgat	agaacaacta.	22080
		gttgagaaga				22140
		acccaacaat				22200
ctgaacatat	ccttagaccc	taccctgggc	cataaaacaa	agctcactag	tgattgccga	22260
aggettggat	ggacagtgga	agagctgcat	ggggaggag	aaggtgacag	ttaaagagtg	22320
taggatttct	ttttgggata	atgaaaatgt	tccaaaattc	attotootoa	tattaacaca	22380
actctacaaa	tataaaaaag	gccattgaat	Egtacgtttt	aagtgggtga	aacatatggt	22440
atgtggatta	tatctaacgc	tttttaaaaa	cttaacacat	ttcaaagaat	agaagtcata	22500
cagagtgtgc	tctactggaa	tcaaactaga	aagaggtaac	tqqaqqataa	cgagaaaagc	22560
		gacagcacat				22620
						22680
		attgtttaat				
		gctgggtgcg				22740
ggaggccgag	gctggtggat	cacaagatca	ggagttcgag	accagcetgg	ccaagatggt	22800
gaaaccccgt	ctcaactaaa	aaactacaaa	aagtagccaa	acacaataac	gggagcctgt	22860
		ctgaggtagg				22920
						22980
gcagcgagcc	aagactgtgt	cactgcacgc	cageeeggge	gacagagact	gccccaaaaa	
		tcaaaatttg				23040
aaatttataa	cactaaatgt	ttacattaga	aaagagaaaa	agtttcaaat	caatagtctc	23100
cactcccatc	tcaagaacac	agaagatgaa	gagcaaaata	aacccaaagc	aagcaaaaga	23160
aaqaaaatat	aaaaataaat	cagtaaaatt	gaaaacagaa	acacaataaa	gaaaatcagt	23220
		cgaaagatta				23280
						23340
		cacggattac				
		ttgacaatgt				23400
caaattacca	caactcaccc	aatatgaaat	agataattgg	gatagcctga	taactactga	23460
gaaaattgaa	tttqtaattt	taacactctt	aaaacagaaa	cattaaactt	aatattttat	23520
		ataccettee				23580
		tatananan	otattaaaca	aaaacgacaa	ttettte-	
ayctaaayay	acguacguac	tgtgaaaaat	acceleagaa	aaatagaact	ccgcccgaag	23640
		ttttaactct				23700
tcactgaaga	attctaccaa	atgtttaatg	aagaattacc	accaactcta	catagcatct ·	23760
ttgagaaaac	tgaagagaag	ggaacatctc	ccagttcatt	ttatgaagtg	ggtgttactc	23820
		gacagctact				23880
						23940
		aaaaaaaaa				
		tggctcacac				24000
		aggagtttga				24060
tctctactaa	aatacaaaaa	ttagccaggc	agggtggtgg	ggaaaataaa	aaqqaaaaaa	24120
		ccaatatcct				24180
						24240
					accatgatca	
		cgcaagtctg				24300
atatgaacgt	actaaagagg	aaaactacat	aatcacatca	atcaatgcag	aaaaaagcat	24360
ttqccaaaat	ccaatatcca	ttcatgatac	tctaataaga	aaaataagaa	taaaggggaa	24420
attecttese	ttastasaca	ttacaaaaga	ctacaaaacc	ttacacctac	cctatactta	24480
		ttcccctacg				24540
		ccctgaagtt				24600
atgaaagacc	tgcagattqq	caaagaagaa	ataaaactqt	tcctgtttac	agatgacatq	24660
		aagcaactag				24720
aaaggatagg	agatttcact	taggaggagt	aagttgaaga	tacctattca	acaacatoot	24780
						24840
aactatactt	aacacattgt	attcttgaaa	acaccaaaag	agigggtgtt	aagegutete	7#0#U

-105 of 185-

accacaaaaa	tgataactat	gtgaagtaat	gcatacqtta	attaqcacaa	cgtatattac	24900
****	catgttgtac	55055055	gagagaattt	tatetese	+++=======	24960
CCCaaaacacac	Catguiguac	atgataaata	Cacacaccc	caccegecag	LLCAAAAACA	
catgattttg	gccaggcaca	gtggctcata	cctgtaatcc	cagcatttta	ggaggctgag	25020
444244242	aacttgaggt	cagaaattta	acaccacaat	ggtcaacata	graaatccc	25080
gcgagcagaa	aacttgaggt	cgggageeeg	agaccagaac	ggccaacaca	gegaaacee	
gtctccacta	ataatacaaa	aattagcagg	atgtggtggc	gtgcacctgt	agacccagct	25140
acttaggagg	ctgaggcacg	agaattgett	gaacaaggga	ggcagaggtt	gcagtgaggt	25200
accegggagg	ccaraacraca	agaaccgcc	3446443554	350050550	500505050	-
gggtgccact	gcattccagc	ctggtgacag	agtgagactc	catctcaaaa	aaaacaaac	25260
aaaggatgag	ttttcttaaa	tacaaaacaa	ccaagcgcag	tggctcatgc	ctgtaatece	25320
adagcacgac	cccccaaa	cacaaaacaa	0000303003	255222252		
accactttgg	gaggccgagg	caggcagatc	acaaggtcag	gagtttgaga	ccagcctgac	25380
caacatooto	aaaccccatc	tctactaaaa	aatatataaa	ttagccaggc	atototaoto	25440
caacacggcg	aaaccccac					25500
tcagctactc	aggaggctga	ggcaggagaa	tcacttgaac	ccggaggcag	aggingcagi	
attaaaccac	cgcactccag	cctgggtgag	agaacgagac	tccgtctcaa	aaaaaaaaq	25560
3003030000					atatttaaa	25620
caaaataacc	taattttaaa	aacactaaaa	ctactaagtg	aattcagtaa	gcccccagga	
ttcaggatat	atgatgaaca	tacaaaaatc	aattqaqctq	qacaaaqqaq	gattqtttta	25680
			asttataaat	gtgaataggt	actatactac	25740
ggtcagtagt	ttgaggctgt	aatgeacaat	gattgtgttt	grgaarager	gergegeree	
agectgagea	gcataatgag	accacatctc	tatttaaaaa	aaaaaaaatt	gtatctctat	25800
~======================================	taagcacatg	catactasas	ttaaaaaaat	aataaatact	otttttaatt	25860
gtactageaa	Laagcacatg	ggtactaaaa	LLaaaaacac	aacaaacacc	geeecaace	
qcctqaaaaa	aatgaaatac	ttacatataa	atctaacaaa	atgtgcagga	cttgtgtgct	25920
gaaaagtaga	aaacgctgat	aaaacaatc	aaadaadact	taaatagggt	gaaatatacc	25980
gaaaactaca	aaacgccgac	aaaagaaacc	adagaagace	caaacagogo		
atgettatag	gttggaaaac	ttaatatagt	aaagatgcca	attttatcca	aattattaca	26040
caggataaca	ttattactac	casastocca	gaaaaatttt	acatagatat	agacaagatc	26100
caggacaaca	ccaccaccac				224	26160
atacaaaaat	gtatacggaa	atatgcaaag	gaactagagt	agetaaaaca	aattigaaaa	
accasastas	agtgggaaga	atcagtctat	ccaqtttcaa	gacttacata	gctacagtaa	26220
agaaaaacaa	agegggaaga			+========	tagagaagta	26280
tcaagactgt	gatattgaca	gagggacage	tatagatcaa	egcaaccaaa	Lagagaacta	
agaaagaagg	acacacaaat	atocccaaat	gatttctgac	aaaqqtqtta	aaacacttca	26340
agaaagaage			tatagagtaa	ttagagatet	atacccasas	26400
acgggggaag	atatgtctct	Cattaaaggg	Lycayaycca	ccgcacaccc	acaggeadaa	
agatgaacct	gaacctcaca	ccctacagaa	aaattaactc	aaaatgactc	aaggactaaa	26460
gataagatat	acatctataa	aacatttaga	aaaaggccac	acacaataac	tcacactcat	26520
cacaagacac	acacccacaa	aacacccaga		3000330033	atttasassa	26580
aatcccagca	ctttgggagg	ccaaggcagg	tggateacet	aaggtcagga	geeegagace	
agccggatca	acatggagaa	accccatctc	tactaaaaat	acaaaattag	ctggacgtgg	26640
tarasastas	ctgtaatccc	acctacttcc	gaggetgagg	catgagaatc	gcttgaaccc	26700
tggcacatgc	Cigraaceee	agecaecegg	9499009499		300030000	26760
ggggggcaga	ggttgcggtg	agccaagatc	acaccattge	actedagect	gggcaacaag	
agcaaaactc	caactcaaaa	aaaaaaaaa	aaaqqaaaaa	taqaaaatct	ttgggatgta	26820
	aagaattctt	agaghtgatg	ccasactaac	atctataagg	ccagtcgtgg	26880
aggegaggea	aagaaccccc	acaccegacg	ccaaaccaag		teessettee	26940
tggctcatgc	ctgtaattcc	agcactttgg	tcaactagat	gaaaggtata	tgggaattca	
ctctattatt	ctttcaactt	ttctgtaggt	ttgacatttt	tttaqtaaaa	aattqqqqqa	27000
Cogcacbaco			tagangangt	++~~~~~~~	agaggeagta	. 27060
aagacctgae	gcagtggctc	acaccigcaa	CCCCagcacc	ccaaaaaacc	9999645369	
gatcacacgg	tcaggagttc	gagaccagcc	tggccaacat	ggtgaaaccc	cgtctctacc	27120
5000000000	aaaattaggg	agatatata	atacatacct	gtaatcccag	ctactgagga	27180
aaaaatataa	aaaaccagcc	aaacaccaca	guguauguu	500000000		27240
ggctgaggca	ggagaatcac	ttgaacctgg	gaggtggaag	ttgcagtgag	ccgagattgt	
gccactgcac	tccagccttg	ggtgagagag	cgagactccg	teteaaaaga	aaaaaaaaa	27300
gecaeegeae	cccagoooog	350500000		account tt	aattotatta	27360
aaagaatatc	aaacgcttac	tttagaaact	atttaaayga	gecagaacce	aaccgcacca	
gtatttagag	caatttttat	actccatage	attottaaat	agagcaacca	gctaacaatt	27420
	aacagctgtt	anatttagta	actatttaca	aaraarccc	tatcaatatc	27480
agiggagile	aacagetgee	adaccigcia	accacccaaa	aagagagooo		27540
actgtcattt	gaggctgaca	ataagcacac	ccaaagctgt	acctccttga	ggagcaacat	
aaggggttta	accetgttag	ggtgttaatg	gtttggatat	aatttattta	gccccaccga	27600
223335555		accenetact	aasaataaaa	cottattoga	addtatataa	27660
grerearger	gaaatttgtt	CCCCagcacc	9999959999	ccccaccgga	ajjejeeja	
atcataaaaa	tggcatatcc	ctcctgaatg	gtttggtgcc	attcttgcag	gaatgagtga	27720
attattaata	ttagttccca	caacaactoo	ttattaaaaa	cagectggca	ctttccccca	27780
gettettatte	ccagccccca	caacaaccgg			ataasatasa	27840
tctctcgctt	cctctctcac	catgtgatct	cactggttcc	CCTTCCCTTT	acgeaacgag	
tagaaggagg	ctgaagccct	caccagaage	agatagtgat	gccatgcttc	ttgtacagcc	27900
Laguagoago		22200tttt	+a++++	ttatccacc	traggtattr	27960
tacaaaacca	tgagcccaat	adacettett	LCLLLataaa	ccacccages	coaggeacco	
ctttatagca	agacaaatga	accaaqacaq	qqqqaaatca	acttcattaa	aacaacccac	28020
gangtangta	aacaaataag	aacaagaggc	tccagaagtg	ggaagccaat	acccagagtt	28080
guaguuauta	aacaaacaay			224425044	atacaccca	28140
cctacaatac	agtatctgaa	aagtccagtt	cccaaccaaa	aaatatatat	acacaggeeg	
gacatooteo	cttatgtctg	taatcccagc	actttqqqat	qctqaqqcqq	gcagatcacc	28200
Sacredaraa			225555	2200000+0+	ctactasass	28260
ctaggtcagg	agttcgagac	cagodegggc	aacacyycaa	aaccccgccc		
tacaaaaatt	agccaggcat	ggtggtggat	gcctgtaatc	ccagctactc	gggaggctga	28320
addaddaaa a b	cacttgaacc	caggagggag	aggtfgcagt	gagccgagat	cacqccacto	28380
ggcagggaat			~	22222222	tatacatata	28440
aactccagcc	tgggcaacaa	agtgagactc	cacctcaaaa	aaaaaaaaada	cacacacaca	
tatatototo	tatatata	tgcgcgcgtg	tgtgtatata	cacatacaca	tatatacata	28500
+a+acacaca	cacatatata	tatgaaggat	daaaadaaad	aaggaagtat	gaaccatact	28560
catacagaca	cacalaldia	Lacyaaycac	guaaayaaac	uaggaag cac	20100000	28620
				nacaarddad	actoricaauro	Z00ZU
ttctgtggtt	atgataggat	ggggtatcac	gggggaagta	gacaagggaan		

-106 of 185-

agagcaaa	a gttatcagat	ttaacagaaa	aagactttgg	agtaaccatt	ataaatatgt	28680
ccacagaat	t aaagaaaagc	gtgattaaaa	aaggaaagga	aagtatcata	acaatattac	28740
	ga gaatatcaat					28800
cggagttga	aa aggtagaata	actaaaattt	aaaattcact	agagaaggtt	caacactata	28860
	g cagaagaaaa					28920
tgaaaaata	a aaagaaaaaa	gaatgaagaa	aaataaacag	aatctcagca	aaatgtggca	28980
	t cacattaaca					29040
	a ttcaaatgat					29100
	a agaaactcaa	-				29160
	it ggtaaaaatg					29220
	a taagagaacc					29280
	g ttgacctctc					29340
	t aaagattcct					29400
ggattgaa	c cagggtcttg	aagagitatt	rgtacateca	cgtteatage	ageattatte	29460 29520
	a aaaggtagaa					29580
	a caatggaatt					29640
	t aaaccttgag it tacttcactt					29700
	g gttgccaagg					29760
	c agttttgcaa					29820
	c aaatatactt					29880
	t ctctactaaa					29940
	t acttgggagg					30000
	t gagattgcgc					
tcaaaaaat	a aaaaataaaa	aaaatttaaa	aatgattaag	caggaggcca	ggcacggtgg	. 30120
ctcacacct	a taatgccagc	actttgggag	qccqaqqcaq	gcgatcactt	gagaccagga	30180
	c agcctggcca					30240
	g gtggcatata					30300
	c caggaggcag					30360
tgggcgaca	g agcaagattc	tgtctcgaaa	aaacaaaaac	aaaaacaaaa	agcaaaacca	30420
aaaaataat	t aagcaggaaa	cgagattgct	gctgaggagg	agaaagatgt	gcaggaccaa	30480
	g agcacaaaac					30540
atgtatctt	a ccacaaaaaa	aagggctggg	gggcaggaaa	tgaaggtgaa	ataaagacat	30600
	a caaaagtaga					.30660
	a caagtgaccc					
	t tattctgtaa					30780
	a aaaagcaatt					30840
	g aaatatactt					30900
	t actaggctaa					30960 31020
	a attttaaaaa a tagacataat					31020
ataggaata	a cattttggta	tctaactaca	attasattat	gaagaagaca	tatattctcc	31140
	a cacacatgtt					31200
aaaaaataa	a taaaataatt	aaaatgtttg	tattagtttc	ctcagggtac	agtaacaaac	31260
	t tgagtggctt					31320
aacacctg	a atcaaggtga	qtacaqqqcc	atgctccctg	tgaaggctct	aggaaagaat	31380
cctccctta	t ctcttccagc	ttccagtggt	tctcagtaac	cctaagtgct	cettaaetta	31440
tagctatat	c attcctagca	accagaaaga	agaaaataat	aaagattatg	qcaaaaaata	31500
	a aaggagaaaa					31560
	c aagttaacaa					31620
ttactagaa	t cagaaataaa	agagggaca	ttactaatga	gggattagaa	aagaatacta	31680
cgaacaaat	g tgtgccaaca	aattagaaaa	cttagatgaa	atggacaggt	tcctaggaca	31740
acatcaact	a ccaaaattta	ctcaagaaga	aagagacaat	ttgaatgagc	tataacaagg	.31800
gaagagact	g aattgacaac	caagaaacta	.tccacaaaga	aaatcccagg	cccagaagat	31860
ttcactgtg	a aattetttea	aacttataaa	tataaattaa	catcagttct	tcacaaactc	31920
ctccaaaaa	a aagaacagat	ctctatttac	aggcgatacg	atctttagaa	aatcctaagg	31980
gaactacta	a gacactatga	taactgataa	acaagttcag	caaggctgca	ggatagaaaa	32040
ccaatatac	a aaaatctatt	atatttctat	acacttgcag	tgaacaaccc	aaaaatgaga	32100
ttaagaaaa	t aattcaattt	acaataacat	caaaaagaat	aaaaacactc	aaaaataaat	32160
ttattcaag	t aagtgcaaaa	cctatactct	agaagctaca	aaacactgtt	aaaagaaatt	32220
aaaggttta	c ataaatgaaa	aactatccca	tgttcatgga	tcaaaagact	tattactggc	32280
toggggtes	c aaattgatct	totaatcoo	CaaaatCCtt	accadatcc	cagacgagge	32340 32400
-99999199	c ggttcatgcc	tytaattoda	geachtiggg	aggorgagge	acgcagatta	32400

-107 of 185-

	cctgaggtcg	ggagctcgag	atcagcctga	ccaacatgga	gaaaccctat	ctcttctaaa		32460
		tagtcaggcg						32520
		atcgcttgaa						32580
		cctgggcaac						32640
		tcactgttga						32700
		tagccaaaac						32760
		aatgttacga					•	32820
		acatacatat						32880
		gtgcttttct						32940 33000
		tgcccaggct						33060
		tgctgggata aagaccattc						33120
		tgaagttgga						33180
		agcccaaatg						33240
		taatcagata						33300
		aaattaattc						33360
		gaaggaaaca						33420
	cttagacatg	acaccaaaag	catgaccaac	taaggtaaaa	tagggtaaat	tgtacctacc	٠	33480
		acctttgtgc						33540
		taagcaaaaa						33600
		aaacagcatg						33660
		caaaaataaa						33720
٠		atgatactag						33780
		accatataga						33840 33900
		aaaactactg ttatggctaa						33960
		ttaaactaaa						34020
		atgggagaaa						34080
		gtgactaaaa						34140
		tctgaataaa						34200
		actgtcttga						34260
		actitgttct						34320
	agtataaaat	agccaacaag	tatgaaaaaa	tgctcaccat	cactaatcat	cagagaaata		34380
		ccactatgag					•	34440
		atggatgctg						34500
		aattggtaat						34560
		ctaccatatg					•	34620
	aagtcagtat	actgaagaaa	tatatgcact	ctcatgttaa	ttgcaacact	gttcacaaca		34680
		ggaataaatc						34740 34800
		caatagaata						34860
		tgaacctgga tgttctcact						34920
		cttgggaaaa						34980
		ctatagaact						35040
		gaagagattt						35100
		ctaattaccc						35160
		ctcataaata						35220
		acccacataa						35280
	aatatttaat	atttataata	tataaagaac	tcctacaact	caagaacaac	aacaaaacaa		35340
		aaatgggtaa						35400
	ggccaataaa	gacacgaaaa	gatgctcaac	atcactagtc	atcagggaaa	tataaatcaa		35460
		tagaatgtag						35520
		tgttggtaag						35580
		atgcagccac						35640 35700
		tatgacccag						35760 35760
		taaaaacttg cccatatgcc						35760 35820
		atattatctg						35880
		aaccttatgc						35940
		cggaaatgac						36000
		gctgggagga						36060
		ggggagctta						36120
		aaggtgtcag						36180

-108 of 185-

tcccaggcct	ctctccttgg	ctggcaggtg	gccatcttct	ccctgcgtct	tcacatcatc	36240
ttttctctqt	gtgtgcccat	gtccaaattt	tgattggctc	attetgggte	atggccaatt	36300
	aagtgaagtc					36360
	cattttaatg					36420
tttttatcta	cattgtgcaa	aqtitaataa	gaaaaataga	attcaagaga	agcagttcaa	36480
tagcaggaat	ttaatatggg	aactaattac	aaggtttagg	gcaggactaa	aaaqccaqtt	36540
	gccaacccag					36600
	gataaaggag					36660
	gggaccaccc					36720
	ccttcctccc					36780
	cagtgacaag					36840
						36900
	aatatggaag					36960
	atttatcttt					37020
	aactgaaaac					37020
	aaatttattc					
	ctataatcag					37140
	aacctgaagg					37200
	taagtgcttt					37260
	atggaaactt					37320
	ttctggaatt					37380
	ctgacctcct					37440
	gtttacatct					37500
	gtatccatat					37560
	ttccatgttt					37620
	aaccttggat					37680
	ttgtcattcc					37740
	atggaatttg					37800
	ccttcattta					37860
	cctgctgccc					37920
agtaattgcc	tgctccctca	tetgtetece	cacccagaca	ttaagctgaa	tagactggat	37980
	tccatcacta					38040
ttcattagca	aaatgttatg	tataaccttg	caccttaaaa	acaagagaag	gaagacaaaa	38100
ttaagtctta	agactatggt	ttagaacatg	gatcagaaac	tacagtctgc	agcccaaatc	38160
cagaccaaat	gaagagacca	tgttcattta	catacaacct	atagcagctt	tcacactaca.	38220
ggagcagagc	taagtagttc	caagggaaca	cacggccctg	caaagcctaa	aatatttact	38280
ctatagctct	tcacagaaaa	agttttcaga	tccctcgttt	agaactcttg	ttcatatgca	38340
atttcactaa	accatagttt	tttgggtttg	tttggttttt	tttggcaaaa	aggaatgagc	38400
cgatccagaa	aaggttgaaa	agaatgaatc	attactgctg	aaagaatgtg	cacacagtcc	38460
gtcagtattc	tgctgccatg	ctgacaccca	tccaatagtg	tcatgagatg	cagcagctac	38520
tactgtgttc	tcaatgccga	gtccacccac	tccataacca	tgtccaagca	atcttgggaa	38580
catcatcacc	atgcttgttt	atccttaagg	tattgcctca	catacagcag	tggctggtca	38640
taaagtcaaa	tgacactagt	ggccaggagg	tcaagagaat	gagtgaggac	aggtgggtag	38700
gcagcccagg	ccctagcaac	agcaggagct	cacccctcag	tcactctagc	caggactgaa	38760
atacttttca	ccctttcaag	agagactagg	aatctggatt	tttatgtgaa	atatcttgat	38820
tactaaatgt	tgtcaacaga	catgtcaaaa	ggtaaaacta	agtaagttca	tggggcagat	38880
tgactattca	ggttatagaa	ttaaggattc	ttatccaaca	cagataccaa	ccaaaaagct	38940
gacgtataac	atattaggag	aaactatgtg	cactgtcgaa	acatcaacaa	ggggctaatg	39000
	tctatattgg					39060
	ggaaactcaa					39120
agtaaacaga	cagatgcaaa	taaaaagagg	gaaactgctg	ccgggcacag	tggctcacac	39180
ctgtaatccc	agcactttgg	gaggccgagg	cgggcggatc	atgaagtcag	gagatcgaga	39240
	taacatggtg					39300
	gcaccagtag					39360
	cggagattgc					39420
	ctccatctca					39480
	aaaaagagag					39540
	agggccttgg					39600
	caaggcgggc					39660
	cggtctctac					39720
	atatatatca					39780
	ccttgacage					39840
	cagtcctact					39900
	tacgaggctc					39960
	JJJ	J		55		

-109 of 185-

tctacaggag	acqaqatqqa	caaaatqtqq	tggatattaa	gaccagaatc	accaaqtaac	40020
			tacagaataa			40080
			gcagtatacg			40140
ggtttgaact	gcctgtgtcc	acttacatgt	ggattttctt	ccacttctgc	tacccccaag	40200
acagcaagac	caacccctct	tetteeteet	cccctcagc	ctactcaaca	tgaagatgac	40260
aargatgaag	actttatca	taatccaatt	ccaaggaact	aataaaaaat	atattttata	40320
aaggatgaag	acciccacya	Laatecaatt	ccaaggaacc	aatyaaaagt	acacccccc	
ttccttatga	ttttctttat	ctctagctta	cattattcta	agaatatggt	acataataca	40380
catcacacge	aaaataaatg	ttaattgact	gtttatatta	tqqqtaaqqc	ttccactcaa	40440
			gtcaaaagtt			40500
			tgttcacggg			40560
gtattatatg	aacctcatta	gaatagctgt	ctatagggag	aagagaatga	gagtgggata	40620
aaacqqaatq	aacaaataaa	ccaacaaatg	cattaacaag	caaaacaaca	qaqqqqcttq	40680
			tgagaatata			40740
			caggcgtgga			40800
gcactttggg	aggctgaggc	gggcggatca	caagattagg	agtttgagat	cagcctggcc	40860
aacacagtga	aagcccatct	ctacaaaaaa	tacaagaatt	acccaggtgt	ggtggcacat	40920
			caggagaatc			40980
			actccagcct			41040
gtctcaaaaa	aataaaaaaa	ataaaaaaac	agagaaaggg	aggaaactag	atccaggctg	41100
actagataca	gcctttagag	ttagaaaaga	tgatttgaca	atctaaqccc	acactcagat	41160
			aacatttaat			41220
						41280
			gcgtggtgtt			
cagaataaaa	atcagctgca	tgtgaagcag	tgactagaat	gaagaaaagg	ctgcttctta	41340
cttccttcta	gtggttcttt	ccgaaaacat	taataggcac	cagctctatg	catgtcaccc	41400
			cttactgttc			41460
						41520
			caaaaactat			
			ggccctgtga			41580
gggaagaaag	accaacatgg	atgggggtga	tcagggtggc	tccgtgggaa	agctggaaga	41640
			gccactacca			41700
			tcgtgtcatt			41760
caatctcaac	tttccagcta	tattgagcta	aacttctcac	ctcatggaat	ttgcagataa	41820
agttcaaaag	gatccttgcc	ttttcaaaat	aattttgaat	ggttgagtag	tccctctgtg	41880
			gagcacgtgc			41940
			cttaatacaa			42000
			gagaagtcat			42060
tttttctgag	gaacacagga	ggaaaatctt	acagaaaaga	gttaacacag	caggcctaag	42120
actgcttttt	aaaataaata	aataaataaa	taaataaata	aataaataaa	taaataaata	42180
			gccaggctag			42240
			ttgggattat			42300
			ataaaaagca			42360
cctgggaact	tagatttcag	aagggttccc	accatccaac	ctggaaagag	ggactcactg	42420
			ctcctgcttt			42480
			gaccagcccc			42540
			catttcacat			42600
tcggggagtt	aagcacatac	atcctgtgtg	actgcactgg	gagaggatgc	ttggaagett	42660
gtgcctggct	tcctttggac	ttggccccat	gcacctttcc	ctttqctqat	tatactttat	42720
			agtacaccac			42780
			ccccaacaca			42840
aaggactggg	catggtggcc	catgccggta	atctcagcgc	tttgggaggc	cgaggcagga	42900
ggaccagtta	agcccaaaaq	ttcaaagtta	cagtgaccta	tgactgcgcc	aatgcactct	42960
			caaaacaata			43020
						43080
			gtagaaacat			
			caactaaaat			43140
gtaaaaagta	ctcagaacca	gattacctga	gcaaaccata	gcccaataca	agcttgggag	43200
			ggtttccagg			43260
tagaacagga	Cacctacasc	utua da adot	gattacctgg	adaadtaaaa	totosatosa	43320
			aatacacacg			43380
			gcctagtaag			43440
aaacttcqaa	gatgaacaca	taaagaatca	ccaagttttt	attcagtatg	atgaaacagg	43500
			caaagataat			43560
attattacat	attata a	aga	canast	Lactagagea		
accaccagac	acccccggga	agacctaagg	ggacattata	aagagcaagc	agccggcacg	43620
tgacgatett	tgtgatatac	caagaaataa	aaacacagga	tgaagaccag	atagagaata	43680
atgctactat	ttgtgcaaaa	aaggagaaat	ggagaatctq	attcatattt	gcttgtattt.	43740
		-				

-110 of 185-

gcatgaagaa	actttggaag	gtacataagt	aactaacaac	aatggttacc	tacttgtaag	43800
			gaacaccttt			43860
tcttggtctg	acttggagaa	tgaagccgtg	gaccctcgcg	gtgagcgtaa	cagttcttaa	43920
aggcggtgtg	tctggagttt	gttccttctg	atgtttggat	gtgttcggag	tttcttcctt	43980
			agtgaagctg			44040
			gttcgttcct			44100
gctagcttca	ggagtgaagc	tgcagacctt	cgaggtgtgt	gttgcagctc	atatagacag	44160
tgcagaccca	aagagtgagc	agtaataaga	acgcattcca	aacatcaaaa	ggacaaacct	44220
			taccactctt			44280
attctcttat	ctggccacac	ccatatcctg	ctgattggtc	cattttacag	agagecgaet	44340
gctccatttt	acagagaacc	gattggtcca	tttttcagag	agctgattgg	tccattttga	44400
cagagtgctg	attggtgcgt	ttacaatccc	tgagctagac	acagggtgct	gactggtgta	44460
tttacaatcc	cttagctaga	cataaaggtt	ctcaagtccc	caccagactc	aggagcccag	44520
			gccacaggtg			44580
gccctgcgcc	cgcactcctc	agccctctgg	tggtcgatgg	gactgggcgc	cgtggagcag	44640
ggggtggtgc	tgtcagggag	gctcgggccg	cacaggagcc	caggaggtgg	gggtggctca	44700
			ccccgcaggg			44760
gaaatcgggc	acagcagctg	ctggcccagg	tgctaagccc	ctcactgcct	ggggccgttg .	44820
			ggcccgccaa			44880
			ccggttcccg			44940
cctccctgca	aagctgaggg	agctggctcc	agccttggcc	agcccagaaa	ggggctccca	45000
			agcgcggcca			45060
			cacgctgtca			45120
			attatcttac			45180
tgagatggag	tegetetetg	tcgcccagac	tggagtgcag	tggtgccatc	ctggctcact	45240
gcaagctccg	cctcccgggt	tcacaccatt	ctcctgcctc	aacctcctga	gtagctggga	45300
ctacaggcaa	tcgccaccac	gcccagctaa	ttttttattt	tattttttt	ttagtagaag	45360
cggagtttca	ccatgttagc	cagatggtct	caatctcctg	acctcgtgat	ccatccgcct	45420
cggcctccca	aagtgctggg	attacagacg	tgagccactg	cgccctgcct	atcttaccta	45480
tttcaaaagt	taaactttaa	gaagtagaaa	cccgtggcca	ggcgtggtgg	ctcacgcctg	45540
taaccccagc	actttgggag	gccgaggcgg	gcggatcacg	aggtcaggag	atcgagatca	45600
tcctggttaa	cacagtgaaa	ccccgtcgct	actaaaaata	caaaaaatta	gccgggcgtg	45660
gtggtgggca	ccggcagtcc	tegetactgg	ggaggctgag	gcaggagaat	ggcgtgaacc	45720
tgggaggcag	agcttgcagt	gagccgagat	agtgccattg	ccttccagcc	tgggcgacag	45780
agcgagactc	cacctcaaaa	aaaaaaaaa	aaaatagaga	cccggaaagt	taaaaatatg	45840
ataatcaata	tttaaaaaca	ctcaagagat	gggctaaaga	gttgacggaa	caaatctaaa	45900
tattagattg	gtgacctgca	aaaccagccc	aaggaacatc	ccagaatgca	gcccataaag	45960
ataaagagag	catttccgct	gggcacagtg	gtatggcagg	ggaattgcct	gagtccaaga	46020
gttgcaggtc	acattgaacc	acaccattgc	actccaggcc	tgggcaacac	agcaatactc	46080
tgtctcaaaa	aaaaaaaaa	ttaaattaaa	aaagacagaa	tatttgagag	aaaaaaatgc	46140
ttatttcaag	aaacatgaaa	gataaatcaa	gatattctaa	ttcccaagta	agaataattc	46200
cagaagcaga	aaatagaata	gaggcaagga	aacactcaaa	acttctccag	tgccatagaa	46260
atgtgtatta	atctttagaa	tgaaacggac	taccaaatgc	tgagcaggaa	gaacaaaaga	46320
gatccactct	taagccagtg	tggtgcccaa	gcgcagtggc	tcatgcctgt	aatcccagca	46380
ctttgggagg	ccgaggcagg	tggatcacct	gaggtcagga	gtttgagatc	agtcaggcca	46440
acatggtgaa	accctgtctg	tactaaaaat	acaaacatta	gctgggtatg	gtggtgcaca	46500
tctgtaatcc	caactacttg	ggaggctaag	gcaggagaat	cacttgaaac	caggaggtgg	46560
aggttgtagt	gagccgagat	catgccacac	tcccagcctg	ggtgacagag	caagattcca	46620
tctcaaaaaa	aaaatccact	cctagacaaa	taatagttaa	attttagaac	accaaggaga	46680
aagaaaaaaa	attgtaaagc	ttcagagaaa	ataaacatta	actacaaaqa	aacgagagtc	46740
agacgcgtgc	acttcttcct	agataccagc	agataaagca	atatctccaa	aattcagaag	46800
gttttaacgt	agaatcctat	acccagtcaa	gaatattcac	atggaaaagt	gaaataaaaa	46860
acattgttta	aacatgcaag	ggttcagaaa	gtttaccatt	cacagaatcc	ctgaaaacaa	46920
aaccaaataa	tcacttaagg	actcattaag	aaaacaaatg	aaataaaaqc	accaatgatg	46980
agtaaataat	cagaaaaatt	tacagtttac	ctaaataact	gtttatgcat	aatgtatgaa	47040
aacccaaaaa	tttaatatgg	gacagaatta	aaatcatgat	aagattettt	tttgctttac	47100
tcatggagag	ttcacataaa	cagattatct	tttaatagca	agagaaaaa	atqtttaqat	47160
atgtgtgaaa	aactaagggt	accaaaacag	tgcaaattca	tttatcatca	ggaaaatcca	47220
aattaaaacc	acagtatcca	ccagaataac	taaaaggtaa	aaqacaqaaa	ttaccaagag	47280
ttggcaagaa	tgtggagcaa	ccacatatac	ttctggggta	aataagttgg	tgcaaccggt	47340
actgaaaact	gtttgctagt	atctactaaa	accgagcaca	tgcacagact	acaaccaagc	47400
agttccactc	ccagatacac	actcaacaga	aatgcacaca	ctcactcaac	aaaagacgtg	47460
tactagagtg	ttcatgtact	tactattcat	aatagtccaa	aaatgcaaac	aaccaactgc	47520

-111 of 185-

caatcaaagt	caaatgtata	. tctatattag	ggatatatac	aatggcatat	acacagcaat	47580
		cggcacagtg				47640
		ttgaggtcag				47700
333caa99ca	ggcagaccac	2020222222	tagge	teateattea	caacacggcc	
ttaaaacccgcc	teees	acacaaaaat	Lageegggea	Lagrygrige	aggeetgtaa	47760
ttecagetae	tegggagget	gggttgggag	aatcgtttga	acccgaaagc	cggaggtcgc	47820
agtgagcgga	. gatcgtgcca	ctgcactcca	gcctggacga	tagagcaaga	ctccgtctca	47880
aaaaaggaaa	. tcaaaaatat	aaaataagat	gacaggaata	atccgcaaaa	gatcagtaat	47940
caaaataaat	ataaatgggc	taaagctacc	tattaaaaga	caaagatttc	acacccataa	48000
ggatagctac	tatcaaaaaa	agagagaa	taacagatgt	tagcaaggat	gtatggaaac	48060
tgaaattctc	acccattcct	ggtgagaata	taaaatggtt	cageetetge	ggaaaacact	48120
		taaaaataga				48180
ccctatatac	ccaataact	gaaagaaga	tattaccacce	gacccaacaa		
gggtatatat	tetteeteet	gaaagcaggg	tectgaagag	atatttgtac	acceatgate	48240
acggcagcac	tattcataat	agctatgatg	tggaaccaac	ataaatatcc	tttgataaat	48300
atatggataa	gcaaaatgtg	gtgtatacat	tcaatggaat	attaattagc	aataaaaatg	48360
aagaaaattc	tgacacatgc	tacaacatgg	atgaaccttg	agggcattac	attaaatgaa	48420
ataagccagt	tataaaaaga	caaatactat	atgaggtact	atattagata	ctcatgcaag	48480
gtacctaaaa	taggcaaatt	catagagaca	aaaagcagaa	tagtagttac	caggggctgc	48540
ggtaatggat	acagagette	aattttgtaa	gatgaaaaaa	ttctqqaqat	tagttacata	48600
acaatotoca	cacacttaac	actggggaac	totaaactta	aaagtagtaa	atootaaaaa	48660
taaaaataat	aaataataaa	ttttatgtta	ttttaccaca	atatttatta	22200000	48720
attaagtaat	tasagasast	ggaggataa	ccccaccaca	acactcacta	thacasas	
accaaccaac	taaacaaaac	ccagccataa	getaatggta	agagtaacaa	ccaaagaaga	48780
Cacagaaaat	LyadaalCag	tgactagaaa	aagatattcc	atataaatgc	taacaaaaag	48840
caagtacagc	aatataaaga	gaatgaacaa	aaaaaaatt	aaataagatg	gctcgtttat	48900
tcccaaaagg	tacaattcac	caagaagata	caagaattgt	gaacctttaa	gcacataaaa	48960
cagcttcaaa	aatacaacat	ttaaagaaaa	atatatatta	aacatagaaa	tagtacaaaa	49020
acccctacaa	qaatcataat	gggagtcttc	aatacaactc	tccatatcaa	caggtcaaac	49080
agagaaaaaa	aataaqttaa	ggatgcagaa	aacctgaatt	accatcaata	aacttgagat	49140
taatatagaa	ctgtataccc	aatatactaa	gagttcaggg	aacagtcgtg	actoacagto	49200
gactgcaaat	taatctottc	ttaatctttg	ttttcttc	accagaage	accountages	49260
atcctasasa	cattacagact	acaaaacatc	***	totactgtgg	tagaacagag	
accccaaaaa	cccccagcc	acaaaacacc		Latadadaa	Lacadadala	49320
accetgaaat	caatayaaya	cacatggtga	aaccaaaatt	ctagaataca	gggagaataa	49380
aggeattte	agatattaca	aaaacagaaa	attgatcatt	gctgaagtaa	tttctaaaga	49440
atgtacttga	gggagaagaa	aaatgttcca	aagaaaagta	tctgtgatac	aagaaggaat	49500
ggaaagtgaa	gaaatggtaa	acaggtagat	aaagctaata	aatgttgacc	tagaaaataa	49560
caaaaacaat	agcaataatg	tctcgttgga	agggttgaag	taaaaataca	attaaggcca	49620
aatgtgaggt	aagtggaatg	aaagaattag	aagtccttgc	cttqttcaca	ggactgatta	49680
aataaatgag	ccaggttttc	cattcaaaca	gttaaaactt	gaacaaaata	aactcaaatt	49740
aaqtaqaaaq	ataaaaaaca	gaaattaatg	tcatagaaaa	ataaaaaatc	aatagaatta	49800
atcaataaat	cctggttaat	aaaagctggt	tetttgaaag	cattaataaa	átaatcatta	49860
accaactete	2442332222	aagagaaaag	ataggaaag	accuacuua acctaatata	tasassassa	
agcaagcccg	tagatagaga	tatataaaa	tatatata	aagtactgta	Leagaaagag	49920
aacatacaga	tacatacaga	tatgtaagag	rergitteet	tacaccagaa	tactatatac	49980
aacattatgc	tagcatatat	taaatttcaa	taatgttaat	gattttctag	gaaaacagaa	50040
aatattaaat	ttactttgaa	gaaacagaaa	aactgagaaa	aataaatgat	catgaaaaaa	50100
atgaaaaggt	aattaaatac	tgatattaac	tgcctaaaca	acaccagcag	cagcccaggc	50160
agtctgcagt	caagttctgc	caaacttgag	ggaacagata	attcttctat	tccagagcat	50220
agaaaatgat	ggaaagtttc	ccaatttaat	cagagaggac	agcctgatcc	ttgttatgaa	50280
cacagataaa	aatggggtaa	actatatgcc	aaactcagat	accaaaaccc	taaataagat	50340
gctagcttat	tgatgtgaac	aatccaaaag	tocattttaa	attagcccag	ggttttagag	50400
aaagaaaatc	taggaatgtg	accaccactt	atottaacaa	ttttaacacc	assatctacs	50460
tratratatr	aatocatoct	20202222	atttagaaaa	acceaagacg	addacccaca	50520
anattttt.	aatgtatgtt	acacaaaagc	accegggeaa	aaaacccaac	acceaccec	
		attaggcata				50580
actcggtgaa	gatacagagg	gaatgctccc	taaaaccaag	cccaagacaa	agattcctat	50640
ttaacctcaa	tagtcaacac	tgcagcgaga	gtaatctatg	gaagacaagg	aaaaaagtaa	50700
aaacatgaga	gacatctgtt	gtttaacaga	caataagatc	acctacttgg	aagaggcaaa	50760
cgaatcaagc	gaaaaactat	taaaactgag	acaggettta	qtatqqaqqc	tcaqcttcaq	50820
ctgtagtttg	ggctaccaaa	ttcaactcgc	ttgcttggag	agttaatcct	gcaaagctaa	50880
tttctattaa	ggtattagga	ttgacaagcc	tatactecte	cctcctcccc	catcttcaac	50940
actgasatas	cacagtattt	ggaactggat	aacadaatct	tocaaaaaaa	aaaattataa	51000
traarrorta	acttataccc	ttactcaaaa	andagaacct	ataataata	anaattaatta	
254455566	accegegeee	gggaagaa-	aacaccccat	cegeetg	Cageteetae	51060
agetgetggt	gyacaageet	gccaaccagc	ceggegtaat	tetteetgea	gagggcaagg	51120
aagagcactt	ccacaggaaa	attttttcc	gaactgtatg	ccgcttatta	cataaactta	51180
cgtgctggca	aatggagctc	cagcaaaata	agatattcag	agtcaaactt	ccttaggaaa	51240
aaaaaaaaa	aaaagcaagc	acataacact	aatttccttg	catgggcact	ggggaaggag	51300

-112 of 185-

gtcgttactt	ccgcacgccc	gcaggtccgc	accaccggga	aacccacggg	caccgcgcgc	51360
		gcactgcgcc				51420
ccctagccct	tecectgica	ccccggccag	gaaggggcgg	gagcgcggcg	gacgccgagg	51480
gcgaagggct	tetegateet	ctgcaccacg	cagcaccccc	aaggcacaac	agggaggtg	51540
						51600
		ggagccgggg				
ggcgagggct	ggggtcgcct	ccagggccgc	agctgtcggg	agccacctgg	ctctcagtcc	51660
		cgggcccgga				51720
						51780
		ctccgggccg				
ctggggacag	gacacgcgac	gaggggaccg	gggcccccqc	ggcgaagacg	cagcacgcct	51840
		gcccccacga				51900
		ctgaggcgca				51960
cqqctaqtac	tcaccqqccc	cgctggctca	gcqccqccqc	aacccccaqc	ggccacggct	52020
		aggagaggga				52080
		gccgcgcggg				52140
cacctacacc	gtcctccttc	agccggcggc	cgggggcccc	ctctctccca	gctctcagtg	52200
		atcctctggt				52260
ccagatgtgg	accccatttc	cgcactctac	actggaggtt	ttctaagggt	ggtgcccgga	52320
ccaqcaqctt	caqcctcatc	tgggaacttg	agaaaatgca	gattctccgt	cccacccaqc	52380
		taaaaccatg				52440
aagcccgtca	agtgattetg	aggcgccctc	cagtttgaga	gctatgctca	cggcctcacc	52500
tecaceceae	aaggagcccg	gtcttgcctg	tggcgctagc	cacacacaa	cacctcatcc	52560
		tgcaccctca				52620
		ggtcaacatc				52680
cctcctccag	gggtgcctca	tggccagggg	ttagaaagag	ccactgtgtt	tcttgacatg	52740
gaagtggggt	220200++22	tgaaaactgc	accactegaa	taacagaacc	tttaatcata	52800
		atgaggagga				52860
tagcaagtta	taacacccaa	gtagaggggc	gagectagge	tagcggttct	cgaccaggg	52920
		gccccgcgta				52980
tgtcatgatg	cgggagttgc	tactgttgcc	taagtgggta	gacacgaggg	tgctcctcaa	53040
catcctacct	gaaggacagg	actgccccac	aaqqaaqaat	gatccggccc	caaataaqaa	53100
		aacccctttg				53160
		ttggtagagg				53220
gagaggaaga	ggagggagat	gtctgtaagg	acqaqcaaac	cagataacaa	ctgatttcct	53280
		tagttataat				53340
		ttttaaatat				53400
ttacaggett	tqcattgata	tgcaaaaatg	agatgggcaa	taattttctt	tttgaatgtc	53460
		atcaatgtta				53520
		cagaagttcg				53580
cccatctcta	caaaaaaaaa	aaaagaaaaa	aaaatgggca	tqtttqcttt	ttccttttac	53640
		ttaaaattat				53700
		tgatgctttc				53760
aaaqtttctt	ctqtggcaat	tttattattt	acattttaaa	aattattcta	gagttaattt	53820
		aaaacaaatt				53880
		agtcttttgt				53940
tttgtgtatt	tttgcttctt	tattttgtta	acttttaaaa	gtgtatttt	ttttcaaaga	54000
atcagetett	aggtttatgt	ttttggttat	actggagett	ttttcttctt	ctttttaaaa	54060
						54120
		ttagacgtat				
ttagaatctt	ttgttactat	tgtgttttta	tttctcctta	tttctctgaa	gtcctgcttt	54180
ataaatagta	ccatgttatt	tgtgcataaa	tattcattto	tettatatte	ttgggaattt	54240
		accttccttg				54300
aatttaactt	tgtctgatat	tttaccatcc	tgctgaattt	tgtttgttac	cccaaacaac	54360
ctttactatt	ttcatctttt	ctgaaccctt	tattttaggt	aatcccttga	attagaggag	54420
		aatctgaaaa				
						54480
tattcatgtg	acagctatat	tatgctgttt	catagecett	ttggtccttt	tttcactctt	54540
gcattgcata	ttttatattt	attgtgtttt	atatitette	toataattto	gaaggtttgf	54600
						54660
acctttattc	agggagttgc	cttataatca	Lacteegeaa	Lacacategt	cccagtttc	
ttcagactqt	ctgttaactc	cctattctga	ataaaaatga	cattgtaatt	tccctcttt	54720
		cctcacctaa				54780
		ttataaatat				54840
aatgagatat	ttggattcct	agatataaaa	gatgttaatt	ataccatttc	cacgttagta	54900
ggtttataaa	atcatacatt	ctgctgtgta	accataatcc	cacqtttqtt	ttagttccac	54960
						55020
		gaagtattat				
aacccatttt	grggraagtt	atgatcctgc	tttagtttct	taagaataat	ttatagagca	55080

-113 of 185-

gagtgtggtg	gctcacgttt	gtaatcccag	cactttggga	gacaagaggt	agaaggatcg	55140
attenness	gazattazza	accaccctga	ggaagatagt	gagagettet	ctctacaaaa	55200
Cicgaagcca	gcagcccaag	accaccccga	gcaacacage	gagaccccgc	-t	
		cgtagtggcg				55260
tgaggcaaga	ggattgctag	agcccagaag	tttgaggetg	cagtgacctc	tgattgtgcc	55320
actoraccc	agtetgggca	agaaagtgag	aacctatctc	tttaaaataa	caataataac	55380
						55440
		gagtttttca				
taaaagtttg	agtataaatt	cttgggttat	actttattta	ttgaagaatg	tataagtatt	.55500
gtcttctaga	attgagtgtt	gctgtaatga	aaccagaagt	cagectggtt	tatttttcct	55560
		gccggacacc				55620
		cacgaggtca				55680
gaaaccccgg	ctctactaaa	agtacaaaaa	gttagctggg	catggtggtg	gacgcctgta	55740
atcccagcta	cccaaaaaac	tgaggcagga	gaatggcgtg	aacctgggag	gaggagettg	55800
cacacactc	agategege	actgcactcc	acctagaca	acadadtdad	actoratoto	55860
cagagagetg	agacegee	actgcactcc	agecegggeg	acagagegag	accongecto	
aaaaaaacaa	aaaaaaaaca	aagaagtgaa	gtaattgeca	tgatgeteea	agaactatet	55920
ctttgtctat	gaaatccaga	aatctcactg	ttatacattt	tggaattatt	attctgggcc	55980
aatatttcct	gggacacaat	agattgactc	tatagattta	attttttt	tttttttgag	56040
		cagcttactg				56100
tectgeetea	gcctcccaag	tagctgggac	tacaggcgcg	tggcaccatg	cetggetaat	56160
ttttqtcttt	ttagtagaga	cagggtttca	ccatgttggc	caggctggtc	ttgaacgcct	56220
		cctcagcctc				56280
						56340
		tctttctatc				
ttctaatacg	ttatttcagt	gttcttctaa	gatgtgtaaa	gcaccctatt	cccaggtcag	56400
ccccatctt	actaataaac	tcggctggtt	cttcacaaqa	actctaattt	teteetgett	56460
		gcctccacct				56520
						56580
		cttactctgt				
cagctcactg	caacctctgt	ctcccaggtt	tgagcgattc	teetgeetea	gcctactgag	56640
tagctgggat	tacaqqcqcq	tgccaccaca	cccggctaat	ttttgtattt	ttagtagaga	56700
		cagggtggtc				56760
						56820
ccccagcccc	ccaaaguget	gagattacag	gegegageea	ccgcgcccgg	catggtttgg	
agttttaatc	tgtagtttta	ataaagatag	tgcttatgtt	tgtgtttctt	atatttcttg	56880
qtactcttqq	qtaatttqta	agatccccat	atctacacaa	gaagtccatt	ttcaattctt	56940
ttetteagae	tatttattt	attttattt	attttattt	tatotttgag	atggagtete	57000
	****	tecaetecae	tagagaata	tangetangt	ggaagtogg	57060
gergreecae	LLCLggaggc	tggagtgcag	rggcgcgacc	ccaggccacc	gcaacccccg	
tctcccgggt	tcaagcaatt	ctcctgcctc	agcctcccga	gtagctggga	ttacaggcac	57120
ctgccacttt	ttaattttt	tagagacaga	gtctcgcttt	gttgaccagg	ctggagtgcg	57180
gtggtgcaat	catooctoac	tataacctcc	aaatcctggg	ctcaagtgat	cctcctqcct	57240
		actacaggca				57300
ttttgtagag	acagggtctc	catatgttgc	ccaggetgge	etectactee	cggccccaag	57360
taatcctcct	acctcagcct	cccaaattac.	taggattata	agcatgagcc	accatgccca	57420
accttattct	actactttaa	tttcatatgt	taggtgacca	tqtaattqat	catccaaacc	57480
		gaggctgaca				57540
						57600
		gcaggagata				
tggattgttg	aatttggagt	ttctatttgc	aggcttattt	caactgggca	gccttgatcc	57660
accetaceca	qcaatqctac	cgttctctcc	accgggtctc	tgggacccct	tcagtcacta	57720
		cctcccactc				57780
aatataataa	agtettagat	gggctgtttc	arttaatatt	aggerage	aaactcccag	57840
		acttggagtc				57900
cactttqcat	ttctqtccct	atatcttagt	ccatggagat	acatttcatg	tctttgagtc	57960
		ctgtttttta				58020
						58080
		tgacgccatc				
tcaagcgatt	catctgcctc	agcctcccaa	gtagctgtga	ttacagacag	gcaccaccac	58140
gcccagctaa	tttttttat	cttttagtag	agacagggtt	tcaccatqtt	ggccaggctg	58200
		tgatctgccc				58260
						58320
ggcgrgagee	accocca	gccaattttg	Cultural	acticatingo	tatatgttta	
		atatgcattc				58380
aattagaaag	aaaatccaaa	aaatctcaaa	aaataccaaa	aagcaacaat	ctcacagacc	58440
atactcactc	acccccaata	aaataaaatt	agaaattaac	cacaacttaa	caaaataaag	58500
		gaggaaataa				58560
		ctttgggagg				58620
tcgagaccaq	cctggccaat	atggtgaaac	cccgtttcca	ctaaaaatac	aaaaattagc	58680
		tgtaatccag				58740
		ttgcagtgag				58800
						58860
gugacaaagc	gagactccat	ctcaaaaaaa	aaaaaattac	aaacccccca	gațagaaatt	20000

-114 of 185-

ttaatatttt	tttttqaqac	ggagteteae	tctqtcqcaq	aggctggagt	acaataaaac	58920
				aattctcctg		58980
ccaagtagct	aggattacag	gcgcccacca	ccagacccag	ctagttttta	tatttttagt	59040
				ctcctgacct		59100
			12222222			
accigettea	geeteecaaa	grgereagar	tacaggegtg	agccaccgca	ccccacctag	59160
atagaaattt	caacatgagg	ccgggcacaa	tggctcacgc	ctgtaatctc	agcacttcag	59220
				aggaccagca		59280
agacagaccc	tgtctctatt	tatttgaaaa	aaaaaaaaa	aaagagagag	agaaagaaat	59340
ttcaacatga	aaagtatctc	tcaaaccctt	cgagatgttg	gcaaaaagcg	actcaaagga	59400
						59460
				gaggccgggt		
acacctgtaa	tcccaacact	ctgggagtcc	gaatcaagtg	gatcatgagg	tcaggagatc	59520
gagaccatcc	tooctaacat	ggtgaaaccc	totctctact	aaaaatacaa	aaaattagct	59580
						59640
				ggctgaggca		
ctgaggtcag	gggtttgaga	ccagcctggc	ctacatggtg	aaacctcgtc	tcttctacaa	59700
atacaaaaat	tagetgggeg	taataataaa	tacctataat	cccagctact	cagaggetga	59760
						59820
				tgagccgaga		
acactccagc	ctgggcaaca	gcctgggtga	cacagtgaga	ctccatctca	aaaaatacaa	59880
aaaattagct	aaatataata	acctacacct	gtagtcccag	ctacccggga	gactgaggca	59940
						60000
				ccgagatccc		
tccagcctgg	gcgacagagc	aagactcttg	tctcaaaaaa	aagaaaaaaa.	aaggaaaaaa	60060
				gctcggacac		60120
						60180
				aattttttt		
ttgagatgga	gtcttgctct	gtcacccagg	ctggagtgca	gtgatgcgat	cttggctcac	60240
tgcaacctct	acctcccaaa	ttcaagcaat	tetectacet	cagcctcctg	agtagctggt	60300
						60360
				ttttattaga		
caccatattt	gttaggctgg	tctcaaactc	ctgatctcag	gtaatctgcc	cacctcggcc	60420
tctcaaaqtq	ctqqqattac	aggcaggcgc	caccqcqcct	ggcctaaagc	aaaatattqq	60480
				actggagcca		60540
				ttcatgatta		60600
tttgcttcct	aaaaatccta	ctatgttgct	gttgaccatt	ctctctctt	ctctctctct	60660
tactttctct	ccagaaaagc	tattcagaca	tteteetett	tcctcaaacc	tccaacactt	60720
				atcattgaga		60780
				accacccacc		60840
tgccccaatt	ctgcgtcctc	tcctctcacc	atggatggac	ggtccaggct	ccgagccaaa	60900
				ttctcaggca		60960
				tgggtcactc		61020
atatatttag	tgatgtttct	cccatgtggt	aaaatcactt	agcctctctc	ctcccccagc	61080
tactatecta	tttatttctt	tccattctct	gcaaaacttc	tcaaagcatt	gtgtctatgt	61140
						61200
				tcccacagac		
gttactccat	gaaatgacct	ctgcactgcc	acatccaatg	gtgaatgttc	agttcttaat	61260
tttattcagt	ctttcagcag	catttgacct	ggccgatcac	tccctcttct	taaaaatact	61320
						61380
				cactttggga		
ggaggatcat	gagagcccag	gagttcaaga	tcagcctggg	caacatggca	agaccctatc	61440
tctacaaaaa	ctaaaaagta	gccagtgtga	tggcatgcac	ctgtagtccc	atctacttag	61500
				ggctgcagtg		61560
9499009499		accedageee	9994445544	3900900909	ageodegaee	61620
				ctcaaaaaga		
aacttttctc	agcatattcc	tctgattctc	ctgctgcttc	tgtctgcaca	gattcagtct	61680
cetttaceaa	ttcttcctca	tcctcctgat	ctcttgacct	tgaagtgccc	cagagtacag	61740
			_			
				caagctggag		61800
aggtctcagc	tcatgcaacc	tctgcctcct	gggttcaagc	gatteteetg	cctcagcctc	61860
				caaattgttg		61920
				ctcctgaact		61980
cegeetegge	ctcccaaagt	gctgagatta	caggcatgag	ccaccacacc	cggcccagag	62040
tacagtettt	agacggcctc	tctacctata	cttgctcccc	tcataaactc	ctcctgcctc	62100
						62160
				ttctcttttt		
cggagtctcg	ctcagtcccc	caggctggag	tgcagtggcg	cgatctcggc	tcactgcaag	62220
ctccacctac	caagttcaca	ccattctcct	acctcaccct	ctccagtagc	tgggactaca	62280
				agtagagatg		62340
atgttagcca	ggarggrere	gateteetga	cctcgtgatc	cgcccatctc	ggcctcccaa	62400
agtgctggga	ttataggtgt	gagccaccgt	gcccaqccqa	tgactcccat	atttctatct	62460
				aatccaactc		62520
						62580
				tttctcccta		
cctgcagtct	ccaccatctt	aatgtccaat	ctaacattag	gaggcaaaaa	ctttgaagtc	62640

-115 of 185-

attettgact	cttctctatt	acacacccta	tccaatcttt	ctgcagatcc	agtcgacccc	<i>6</i> 2700
caaatccaqt	tagctctcat	catctcccct	gttaccccct	gatccagacc	atcttcctct	62760
ctcacctgaa	tcactgcagc	attetectea	ctaatetett	taattetatt	ttcactccac	62820
cttaggatag	tctccacaga	acaatcaaaa	ggatcctttt	agartataat	tecestecte	62880
	gctcaaaacc					62940
anatatta.	geteadate	atastataa	tottototo	accegecaga	ttaaaagcca	
gageeeeee	agtgacctac	atgatetgee	Lattateace	Ecceactect	tteeeettge	63000
tcactccact	ccagctctgc	agetgteett	tetgttteet	gaacagccca	gattttgctt	63060
ctttagaacc	tttgtatttg	ctgtcccctc	tgtctggaat	gtttttccag	gaagtcacct	63120
ggetetetee	tgcacttcct	tcctgaccac	catgtttaaa	aatcactcaa	acacacttca	63180
ggccggacat	ggtggctcac	gcctgtaatc	ccagcacttt	gggaggccaa	ggtgggtgga	63240
tcacctgagg	tcaggagttc	gagaccagcc	tggccaacat	ggtgaaactt	cgtctctact	63300
	atagtagcca					63360
	gagaatcgct					63420
	ccccagcctg					63480
aaaaaaatca	cacaaacaca	cttctcttca	tattcctttt	ccaagtttta	tttttctcca	63540
	cattgtttta					63600
catacadata	ggcactctag	tecteceste	coegration	cccaaccaga	acetactta	63660
cttctcaggca	ggcaccccag	caccactatt	caagtattaa	taggettaa	attttaatta	
tetttgagag	caggggagat	tabbacter	cagggcggca	tggcccagga	acticigatio	63720
-tyculation	attgctgttc	tgitgattet	cttttgtte	teeteetagt	getgagaaca	63780
ctacttgtac	ataataagca	ttcaataaat	atttgttgaa	tgaatgactt	gttgaatgaa	63840
	aaatgcagga					63900
tgtcgtaaca	cattaagaga	ggaaaatttt	gtactctaaa	tcatttgata	aaatacatac	63960
tgatttctgt	tttcaaaaac	tcttagtggc	tgggcgaggt	ggctcacatc	tataatccca	• 64020
gcattttggg	aggacgaggt	gggcggatca	cttgaggtca	ggagtttgag	accagcctgg	64080
ccatcatggt	gaaaccctat	ctctactgaa	aatagaaaaa	ttagccgggt	gtggtggcgc	64140
atgcctgtag	tcccagctac	ctgggaggct	gaggcaggag	aatggcttga	acccgggagg	64200
cggaggttgc	agtgagccaa	gatcatgcca	ttgcactcca	gcctgggtaa	cagagtgaga	64260
ctccatctca	aaagaaaact	cttagtgagt	ttaggaatcc	aaggaagacc	ctcaaactaa	64320
atagataatc	tagctaccag	aagccttcag	taaaccttaa	cactccatgg	tgaaacatta	64380
	tactaaaaga					64440
	aagaaatgag					64500
	cagcaaggac					64560
	cgaagcctgc					64620
tqcaqqqtac	ttcctctgcc	agggagttgc	actggggaga	tectececa	ctcacacttt	64680
gacaactaga	gctttggaat	gtgacttage	ttctqtcaaa	gggtcaatcc	accetttgat	64740
atatgatgca	aaggcgaaca	tatgatgcaa	aggtgagaga	acageceaaa	ttaggacttt	64800
	gtggaggtgg					64860
aaaggtggtg	gttgttcttc	ctacttcttc	tccctccaga	acttecttta	cetatatact	64920
gaacctgctt	cttttaattt	tttttaactt	ttttaaattt	ttaattottt	taattaaaac	64980
aaattttgaa	aactgtctga	acctdctttt	gaaccctgct	atratttraa	tatttatacc	65040
ctcccaaact	gattttgaaa	cttaatctcc	aaactcccac	tattgacegua	agactttaaa	65100
	atcatgagag					65160
						65220
acgggagcgg	catcagtggc	ttacadayay	gaayaartaa	gaccugaget	ageatggteg	
	atttgatatc					65280
agaaggcccc	caccagatac	ageteeteaa.	ccttgtactt	cccagcecec	graacrgraa	65340
	ccttttcttt					65400
	aaggcaaact					65460
	agagccagag					65520
ttgggaggcc	gaggcaggtg	gatcacaagg	tcaggagatc	gagaccatcc	tggctaacac	65580
ggtgaaaccc	cgtctctact	aaaaatacaa	aaaaattagc	tgggcgtggt	agtgggtgcc	65640
tgtagtccca	gctactcggg	aggetgaage	aggaggagaa	tggcgtggac	ccaggaggcg	65700
gagcttgcag	tgagtcgaga	tcgtgccact	gcactccagc	ctgggtgaca	gaatgagact	65760
ccgtctcaaa	aaaaaagaga	gccagagttt	atttctgttg	cttgcaacca	agaaatctgg	65820
ctggtgcact	gaagtttcca	taaataatag	caatttaaag	actctttcca	agccaggcaa	65880
	tgtgtagtcc					65940
gtgctccaga	gactaagaat	acaaaaatgg	gggccgggtg	tggtggctca	cacctataat	66000
cctagcactt	tgggaggccg	aggcaggtag	atcacctgag	gtcaggagtt	cgagaccaac	66060
ctggccaaaa	tggtgaaacc	cctactctac	taaaaataca	aaaaattaoc	tagagataat	66120
	tgtaatccca					66180
	gttgcagtga					66240
gcgaaactcc	acctcgaaaa	aaaaaaaaa	aaaaaaagag	aaccaaaact	ggácacagta	66300
	gtaatcccag					66360
	agcctgacca					66420
				Jacquadat		00120

-116 of 185~

tecaaaaata	atracacaca	cctctactcc	cagctacttg	agaggetgag	acaddadaat	66480
			gagccgaaat			66540
tgggtgacag	agtgagactc	cgtctcaaaa	aaaaaataaa	aaaaaaaaa	gaattcaaaa	66600
attotagagt	tatagtgtgc	ttctagttta	gttgagagga	catctotcct	tcaaggaagg	66660
			atcaatccag			66720
			tttgtacatt			66780
cactgacaga	gctgaaggaa	gctcacagtt	ctgggttcca	tcctttggca	tttaaaaaga	66840
aaagtgctaa	gaaaattcgg	ttggtcacgg	tggctcacgc	ctgtaatccc	aacactttga	66900
			gagttcgaaa			66960
						67020
			tagccgggca			
cccagctact	caggaggctg	aggcaggaga	attgcttgaa	cccgggaggg	ggaggttgca	67080
gcgaqtqaqa	gcaggccact	gcactccagc	ctgggagaca	gagcaagact	ctgtctcaaa	67140
			aaaagaaaga			67200
			cctgtaatcc			67260
			gaccagcctg			67320
tctctataaa	aaaaaatttt	tttttggcca	gacgcagtgg	ctcacgcctg	taatcccagc	67380
			aggtcaggag			67440
			acaaaaaatt			67500
			ggcaggagaa			67560
			gcactccaga			67620
			taattgtcag			67680
agtcctagct	actcgggagg	ctgaggtaag	aagatcgctt	gagcccagga	gttcaaggct	67740
gcagtaatag	tacctctcac	tctaccctgg	gtgacaatga	gaccctctct	caaaaaqaaa	67800
			aaagagaaga			67860
		_				67920
			aaaagaaaga			
			tttttatgtt			67980
ttatttttga	gacagtatgg	ctctgtcgcc	caggctggag	tgcagtgatg	cgattgcggc	68040
tcactqcaqc	ctccaaactg	ggctcaggtq	gccctcccac	ctcaqcctcc	cgagtagctg	68100
			taattttta			68160
			teetgggett			68220
			gccaccgcgc			68280
tttattgacg	gggtctcgct	gctgcccagg	ctggagtgcc	agtggctgtt	cacaggtgca	68340
gtcctggagc	attgcatcag	ctcttgggct	ctagcgatcc	tccagagtag	ctgcagctgg	68400
			gaatgggttt			68460
			gtgtgcgcag			68520
						68580
			ggtgacagag			
			agtaaggtct			68640
tatggtcata	gcagtattaa	ctttgaccca	ctagctaaaa	cacaaaagca	acatgtgtct	68700
qtcaqcaqqt	gaacggataa	acaaaatgtg	gtatatatgt	acaattqaat	attattcagc	68760
			gggctcacgc			68820
						68880
gagaccgagg	tabababaa	accegaggee	aggagtttga	gaacagcccg	gccaacacgg	
tgaaacttca	tetetaetaa	aaatactaaa	attagccggg	catggtggca	ettgtetgta	68940
atccaagcta	ctggggaggc	taaggcagga	gaattgcttg	aactcaggag	ccggaggttg	69000
caqtqaqcta	agatggcacc	actgcactcc	agcctgggca	acagagtgag	actccatctc	69060
			aaagaaacaa			69120
			agcctggttt			69180
			agtcctggaa			69240
			tgcagtccct			69300
gccagacgtg	gtctgactgc	agggtcatcc	ttggtggctt	aggetgaete	gggcatagca	69360
			tttgccccca			69420
			gcactgtctt			69480
		4 - 4 1-				
			tcaagtccca			69540
			cccacgacgc			69600
tttaaacaga	gtcttttact	gcagatccca	agaacagcca	cacccctctc	tcccacccac	69660
tccagacaca	cccaggtaat	tatagcaccc	agggtaacta	totacatoca	gtccctggaa	69720
			aaagcaacat			69780
22222222	5-5-5-5-5	22222220	ctctgggagg	taccastat-	-33-2	69840
ccgccaaaaa	Liggiagage	aaggccacag	gatctttctg	accttccttc	caaacagagg	69900
			accactccct			69960
			ctactgaggt			70020
			caacttcaat			70080
			aaacaggctt			70140
						70200
uuaaacaada	acycclacaa	guadactitt	tataaagggc	Layacaycaa	acaccccayy	,0200

-117 of 185-

				•		
ctttgagagg	cacatagact	tatttacaga	gactcaatgt	cactattata	gtttgaaagc	70260
						70320
	gttatgtaaa					
aaaacagaca	atgagtgggc	tggatttggc	ccatgatect	tagtttgcca	actcctgctt	70380
tagactcacc	cagatctgat	tttqaattct	ggctctgcta	ctggttagct	gcaggagctt	70440
	ctgagcctgt					70500
ggaaggcccc	cegageeege		geadaceaa	agcaacaacc		
aagagtgtta	cctcacgcct	gtaatcccag	cactttggag	gctgaggcag	gcggatcacc	70560
tgaggtcaga	agttcaagac	cagegtggee	aacgtggcaa	aaccctgtct	ctactaaaaa	70620
	tageegggea					70680
						70740
	actgctagaa					
cacactccag	cctggccgac	agagcgagac	tccatctcaa	aaaaaaaaaa	aaaaagagtg	70800
ttagaaggtt	ttgagataat	gaataaaaga	taccttatat	atactaaqta	ttcaacaact	70860
	ttggtctaat					70920
	ggacttccta					70980
ggcattggat	agaggagttg	agagaacacc	ctaggactgt	tattattatt	attcgacacg	71040
gagtetettg	ctctgtcacc	caggetggag	tacaataaca	caatctcaac	tcactgcaac	71100
	caggttcaag					71160
	cccggctaat					71220
catgctggtc	tcgaactcct	gacttcaggt	gatccacccg	cctcagcctc	ccaaagtgct	71280
	atgtgagcca					71340
						71400
	gctgcaagat					
cattcacaaa	atgaggcaaa	taataatatc	tactatccca	ggttgtcatg	agaattaaat	71460
gcaacatgac	atttaatgaa	atgagaagtc	ccttqqacat	·taactggcta	aagtatgtgc	71520
	tatcatttta					71580
	aacgcattaa					71640
gaagaagaca	agaggactga	ttataatgct	tcaggctcac	tagtctcctt	ttaggaggga	71700
aaaacaattt	caagttaaat	tttaggctct	agattttac	ccctactact	cattagaatc	71760
	atgaaatcag					71820
	gattaagttt					71880
atattattgc	agtgatggtc	attattgttg	ttattattat'	actgaaagag	gcttcagttt	71940
tctgatccat	aaagtgaggg	aattgcatga	gaccattgct	aagattcctt	ctagetetgt	72000
	ttgtttttta					72060
	actgcaacct					72120
gaagtagctg	ggactacagg	cacacaccac	catgcccagc	taacttttat	atttttaata	72180
gaggtggggt	ttcaccatat	tggtcaggct	ggtctcaaac	tcctgacctc	aggtgatcca	72240
	cctcccaaca					72300
						72360
	tgatcactga					
ataaaagatc	atgcaagagc	tcccaatatg	gtattaataa	ttgattctgg	aggettaget	72420
actcctgatg	gattagacat	gactcaactg	cctctcttat	gtgtacaaca	caacaacaca	72480
	gttattctgg					72540
						72600
	aagatatggc					
tttgggaggc	caaggtgggc	ggatcacaag	gtcaggagtt	tgagaatctg	gcaattcttc	72660
agacttagaa	gcaaccagct	cgataacaca	atcttatata	aactctccct	ctatccctcc	72720
	tcatttctca					72780
	catctcaggc					72840
ctaaaagagg	attgggattt	ggaagttaga	ttattcacca	gagaacagac	tttgctgatg	72900
atcaggccca	ggttgtaatt	gttgaaaaaa	agagaggatg	catagtetta	teteatetee	72960
	caacaccatg					73020
	aaccctgaga					73080
agaaggctgg	acattgacct	cagcacaggc	aggagccctg	caagatgcca	tttgtcctac	73140
taaagatgga	cccctccact	ctatttctag	gtaaataacc	aaagtcaagt	ctccacacag	73200
						73260
CCCGagcaag	aaagtcagag	cccgccacag	gagaaaatac	cacactggcc	aaayyaccca	
ctagccctgg	ccactgtgtg	tgggaggaac	cagggaatca	tgtgtgggag	tcaatgttga	73320
agctgttgga	ctgggggtgg	ggtggaatat	aagcetqqce	ctggggagtt	tttcccgttt	73380
	acccacaact					73440
taacacatco	tcaccattca	acttooccta	gagtasasta	Sandadastad	taccacaact	73500
	tcaggattga					
ttctcaacat	actattgagg	aagaggtcag	aaggcttaag	gaggtagtgt	aactggaaag	73560
gggtcctgat	ccagacccca	ggagagggtt	cttggacctt	gcataaqaaa	gagttcgaga	73620
cgagtccacc	cagtaaagtg	aaagcaattt	tattaaagaa	gaaacagaaa	aatggctact	73680
						73740
	gcgacatggg					
tgctaaacaa	agggtggatt	atttgtgagg	tttccaggaa	aggggcaggg	atttcccaga	73800
	cccccactt					73860
	tcatggccct					73920
						73980
cacaacyayc	agtgaggacg	gecagaggec	guilleatea	ccaccttggt	rrryyryyyt	13300

-118 of 185-

tttggccggc ttctttatca catcctgttt tatgagcagg gtctttatga cctataactt 74040 ctectgeega cetectatet cetectgtga etaagaatge ageetageag gteteageet cattttacea tggagteget etgatteeaa tgeetetgae ageaggaatg ttggaattga 74100 74160 attactatgc aagacctgag aagccattgg aggacacagc cttcattagg acactggcat 74220 ctgtgacagg ctgggtggtg gtaattgtct gttggccagt gtggactgtg ggagatgcta ctactgtaag atatgacaag gtttctcttc aaacaggctg atccgcttct tattctctaa 74280 74340 ttccaagtac caccccccgc ctttcttctc cttttccttc tttctgattt tactacatgc 74400 ccaggcatge tacggcccca gctcacattc ctttccttat ttaaaaatgg actggggctg 74460 ggcgcggtgg ctcatgcctg taatcccagc actttgggag gccgaggcgg gcggatcatg 74520 aggicaggag ategagacea teetggetaa caeggigaaa eeeegietet actaaaaatg 74580 caaaaacatt agccaggcgt ggttgcaggt gcctgcagtc ccagcggctc aggaggctga ggcaggagaa tggcgtgaac ctgggaggtg gaggttgcaa tgagccgaga ttgtgccact 74640 74700 74760 tagetgggea tggtggegeg tgeetgtaat accagetaet etggaggetg aggeaagaga 74820 ategettgaa eccagtagge ggaagttgea gtgageegag atettgaeae tgeacteeag 74880 cctggtgaca gagtgagact ctgtctcaaa aaaaaaaaa agaaaaaaa agacagaaag 74940 aaagagcaca gacagagtca caggtatttg cagtaggaag ctgtcaggtt agagtgcacg gaaatagaaa gtatatttta cacttacagc acatcttcgt ttgattagcc acatttaaaa 75000 75060 75120 tactgaatag caacgtgtgg ctatttagta ttcactaaaa tcttggacag tgcaagtcta aagaateett gateegteeg geatggtgge teaegeettt aateeeagea etttgggagg eeaaggtgga aggateaett aaggteagga gttegagace ageetggeea acatggtgaa 75180 75240 acctcgtctc tactaataat acaaaaaaaa ttagccgggc atggtggtgc atgcctgtaa 75300 tcccaggtac ttgggaggct gaggcaggag aatagettga atccaggagg cgctgcagtg 75360 agccgagatc atgccatgcc actactgcac tccagcctgg gcaacagagt gagactgtct 75420 caaaaaaaaa aaaaaaattg ttgggcgtgg tggctcacgc ctgtaatccc agcactttgg gaggctgagg ggggtggatc acctgggttc tggagttcga gaccagcctg gccaacatgg 75480 75540 tgaaacccca tetetactaa aaatacaaaa attagetggg egtggtggtg ggcacetgaa 75600 atctcagcta ctcaggaggc tgaggcagga gaatttcttg aacccaggag gcagaggttg 75660 cagtgagcca agatcgcgcc tctgcactcc atcctgggtg gcagagcaag actatgtctc 75720 aaaaaaaaa aaaaaaatac ttgattgtct ggacattctg cagaacatca tatggagaca 75780 ctatgttgac gacatcatgc tgattgtaag caagaaatgg caagtgttcc agaaacacag tcaagacaca tacatgccag aaggtgagat ataaactcta ctaagattca gtggcctgcc 75840 75900 acactggtga catttttaaa cctgctagat gtttgtgtag aaaaggattt aaccttgccc 75960 aaagaggggt ctggcctttg tccccagcta ctggacataa tctctttaaa ctcttgaaat 76020 atcattcctg atagaagtat ttttgttttg actaggggcc ttgggccagc cagatagcaa 76080 caatgtgate tgggttgggg getttggate aggtggeate agtgtgaeet eetgagtgge 76140 tagagactag aatcaaccac atgggcagac aacccagctt acatgatgga attccaataa 76200 agactttgga cacaagggct tgggtaagct ttcctggttg gcaatgctct atactgggaa acceattctg actccatagg gagaggacaa ctggatattc tcatttggta cctccctggg ctttgcccta tgcattttc ccttgtctga ttattattat tattatgaga tggaatctcg 76260 76320 76380 ctotgtcacc caggotggag tgcagtggaa tgatotcaac tcactgcaac ctotgcotco 76440 ccggttcaag cgattttcct gtctcggcct cccgagtagc tgggactaca gatgcatacc accacacccg gctaatttt ttgtatttt agtagagacg gggtttcacg ttagccagga 76500 76560 tggtctcgat ctcctgacct catgttccgc ctgcctcggc ctctcaaagt gctaggaata 76620 catgtgtgag ccaccgcgcc cagccccctt ggctgattat taaagtgtat ccttgagctg tagtaaatta taaccgtgaa tataacagct tttagtgagt tttgtgagca cttctagcaa 76680 76740 attatcaaac ctaaggatag ccttggggac ccctgaactt gcagttggtg tcagaaataa 76800 gggtgctcat gtgtgtacca tgccctctaa ttttgtagtt aattaacttt cacaacttta 76860 ttattaccgc ttacactcaa tgtttattca catttatcca cataccactt attctagtgc 76920 cttgcatcaa agactttcta tctcatgtac tttattctgc ttgaagtaaa tcctttagga 76980 tattcttttt ttttttaaa ctttgcacat acatacttt atttttatt tattttaat 77040 tttgttattt ttgtgggtac gtagtagata tatgtattta tggagtacat gagatgtttt 77100 gatacaggca tgcaatgtga aataagcaca tcatggagaa tggggtatcc atcctctcaa 77160 gcaatttate etteaagtta caaacaatee aattacacte tttaagttat tttaaaatgt 77220 acatttaatt ttgtattgac tagagtcact ctgttgtgct atcaaatata atttttttt 77280 tttttgagac agagteteac teagtggeec agaetgaaag tgeagtggea caagetegge 77340 tcacttcaat ctctgcctcc ctggttcaag cgaatctcct gcctcagcct cccacatage tgggattaca ggcacacacc accatgccca gctaattttt atatttttt agtagagacg 77400 77460 ggttttcgcc atgttggcca ggctggtctt gaactcctgg cctcaaatga tctgaccacc 77520 teageeteee aaagtgetag gattacagge atgageeaee acacetggee aaaatagaat 77580 attetttagt gaggtetget ggtgacaatt ttttetttt ttttgagaet gagteteget 77640 gttgtcagct tgggctggag tgcaatagca cgatctcagc tcactgcaac ctccacctcc 77700 eggattecag caatteteet geeteageet eecaagtage tgagagatta caggeaceca 77760

-119 of 185-

ccaccacaco	cggctaattt	ttqtatttt	aqtaqaaatq	ggggttcacc	gtgttggcca	77820
					aaagtgctgg	77880
gattacaago	atgagggagg	acgcacagco	aatttttcc	attittatct	gaaatcttat	77940
		tatttttgat				78000
		agacagggto				78060
atotoatoto	gattaectae	agacttgacc	teetaeeest	geccatgetg	tagasastas	78120
geeceecag	Lagergggae	tacagatgca	tgecaccata	cccaactaat	tttttttt	78180
		ccacatttcc				78240
		acaaagtgct				78300
tagcatattg	aatatttaat	atgaatcttc	tggcatccac	tgtaactgtt	taaaaaatca	78360
gctgtttact	tggcactctt	tttttttt	ttttttttga	gacagagtct	tgccctgtcg	78420
cccaggctgg	agtgcagtgg	cgtgatcttg	gctcactgca	agctctgcct	cccgggttca	78480
cgccattctc	ctgcctcagc	ctccggagta	gctgggacta	aaggcgcccg	ccaccacgcc	78540
cggctgattt	ttttgtattt	ttcgtagagt	tggggtttca	ccgtgttagc	caggatggtc	78600
tcgatctcct	gacctcgtga	tctgtccgcc	teggeetece	aaagtgctgg	gattataggc	78660
gtgagccacc	gcgcccagcc	tctttttt	tttttttag	acqqaqtctt	actctqtcat	78720
ctaggctggt	gtacagtggc	gtgatctcag	ctcagtgcaa	cetecacete	chaccheage	78780
		caggtgcgta				78840
agtagagatg	gggtttcacc	atgttagaca	gactaatete	gaactcctdd	cctcaactca	78900
teteecteec	ccaccetccc	aaagattaca	ggccggcccc	3440000009	aggaga	78960
ttttatta	tassattta	cttcccctac	Cectageaac	ctttaacaat	ttttcttcat	79020
		ttattaataa				79080
gtttgcagtt	catagtgatt	cttgaattag	tgtgttggtt	tctgttatca	ccacaggaaa	79140
attgtcagcc	gttagctttt	caaatatttc	cttgctaaat	tetetettet	ccccttcgg	79200
tacaattgat	ttgattaaaa	ctaaaaccag	ggccgggtgc	agtgactcat	gcctgtaatc	79260
ccaacacttt	gagaggctga	ggcaggtgga	tcacctaagc	tcaggagttc	aagaccagcc	79320
tggccaatat	ggtgaaaccc	cgtctctact	aaaaatacaa	aaattaccag	gcatggtggc	79380
acacatttgt	agtcaggagg	ctgaggcagg	agaattgctt	gaatccagga	ggtggaggtt	79440
gcagtgagct	gagatcccac	cactgcagtc	tggcctgggc	gacagagtga	gatgagaatc	79500
tgtctcgaaa	aaaaaagtta	tgaatgtttg	ataaactata	tttqttaqaa	tgtttgttgt	79560
agaatactat	tcattgattt	ttaaacaatg	ttagattaaa	ccattcactq	gatttgtgat	79620
aattaactta	ctgattttac	ctcactgatt	tattataatt	aatacaactg	gtataaaaag	79680
actotoacoa	aaccaaacat	ggtggctccc	gcctataatc	ccaccacttt	gggaggctga	79740
gacagacaga	tcacctgagg	tcaggagttc	aagaccagcc	tgaccaacat	ggtgaaaccc	79800
catctttact	aaaaatacaa	aattagccgg	tcataataat	gcatgcctgt	aatcccact	79860
cttcgggagg	ctataacaaa	agaatcactt	daacccdda	gatagaaatt	gcagtgagcc.	79920
gatatcgcgc	cattocacto	cagectagge	aacaacaaca	ggeggaggee	taaaaaaaaa	79980
322722222	accegeacce	acaaaacaac	aacaagagcg	ttagannan	ttaaaaaaaaa.	
						80040
tanattant	tanananta	aaaattaatt	Ltattttata	tgcaaaccaa	aatgaettta	80100
Lgaayttaat	Leagaaatae	aatgcagggt	actagettge	cacagetgeg	tattcagcct	80160
aatgtaatat	tettgttatt	tttaaattct	tettttaact	ttactcatat	grggarcatc	80220
aaatttcaaa	agattaaatg	acaatactct	tagcagcaag	cttccctaag	catataaaca	80280
ttttaatggg	tgatgattca	gaaggtaccc	gaagaatatg	tactgccaga	tatcattcac	80340
ccccatatac	ctgcccgaca	gacatcccat	tttgggaccc	tggataaatg	tgtgggtgga	80400
gagaaagata	ggagaaagtg	gtataagcaa	atggctttgg	agtctgattg	acagcgattg	80460
aaatcctgtc	tctacctctt	aacagcctca	tgatcctaca	taagttaccc	cgatcctcag	80520
ggccacatct	gtaaattggg	ggttgcgatg	gcagccatct	cacagggtct	cttttcgggg	80580
aagggcagga	attatggatt	aagtgagcta	gtaattgtaa	agcacttaat	acaaggaggg	80640
cgcataataa	gtacttcata	aataatgacg	gccattatca	tgactgaggt	gtatgcaget	80700
qtcqqqqatt	acqqcqactt	cagaatttct	gatagacaga	gctcaaaggc	agcaaatcac	80760
actogaagte	gaggtgaggc	actgcttctg	cacagactgc	ttagctggag	agaatgagga	80820
		ggaacttaga				80880
teceatacea	gagacettca	ggggatttct	cacactataa	cctaaccccg	ataggataga	80940
ccccatccaa	gagacacca	9999acccc	cgcaccccc	taranaetta	transaction	
3300033000	ccaaccacac	aacacataca	hhanhanhan	cgcgaggccc	tgeaegetgg	81000
aagggaacag	gagaagggcg	ctgcgctttc	ttgetgatge	cctgtacttg	ageceerage	81060
agacacagee	actigeede	tcagcctgca	yagaaatccc	acgtagaccg	caccadarc	81120
cceggettea	gccaatctcc	ctttggtggg	ggtgggatgc	acgatccaag	gttttattgg	81180
ccacagacag	cggggtgtgg	tccgccaaga	acacagattg	gctcccgagg	gcatctcgga	81240
tccctggtgg	ggcgccgctc	agcctcccgg	tgcaggcccg	gccgaggcca	ggaggaagcg	81300
gccagaccgc	gtccattcgg	cgccagctca	ctccggacgt	ccggagcctc	tgccagcgct	81360
gcttccgtcc	agtgcgcctg	gacgcgctgt	ccttaactgg	agaaaggctt	caccttgaaa	81420
tccaggcttc	atccctagtt	agcgtgtgac	cttgagcagt	tgactttatt	tttcaqtqcc	81480
tagttttcca	gataccagga	ctgactccaa	ggactattac	tcatctggag	ggtttagcac	81540
-		-				

-120 of 185-

			_			
agtaccgtcg	catagtaaat	ttccatqtca	gttttggtta	cctttcatcc	acttgcaaac	81600
						81660
	ctgaaacgaa					
ctctcgccca	ggctggagtg	cagtggcgcg	atcttggctc	actgcaacct	ccacctcccg	81720
tattcaagat	tctcctgcct	cageeteetg	attagetggg	actacaggca	taccacaaca	81780
	ttttgtättt					81840
taactcctga	cctcaggtga	tetgaetgee	tcagcctctc	aaagtgttgg	gattacaggc	81900
ataagccact	gcatctggcc	agaaatgaaa	taaqtaaatc	ttttaacctq	ctctaacaat	81960
atadidaaaa	gaccatatta	ttattagage	addttaaddd	atttacctat	ttcagattct	82020
	ttaaacttgg					82080
cccttcttgt	taaagaatac	atcataagtg	ttagaagtaa	tagtttattt	taaagactaa	82140
	gcctccttgc					82200
	tgctcacagg					82260
aatgttattg	cttccttaaa	cctttcggta	agcaacttcc	tctccttctt	cgttcttcct	82320
tocacttacc	tatttagaaa	attttaggct	attagcaaat	cggctatcag	tttaagagtg	82380
	ctccagccaa					82440
agggataaat	atgtttgctt	tteetttgtt	caggtgtgct	ctcgacatcg	ttecatetge	82500
gattgagcac	cctttctgca	gaaagtaaag	attgccttgc	tggagatett	ttgtctccgt	82560
	cttcgtggca					82620
	ttgggctagt					82680
acttcattgg	tttaaaaacc	ccagcgaaca	tttattgagt	tactattacc	tteetgeeet	82740
ccccaacccc	aaccccaggg	agcagttaca	acctcagccg	ctgagcgcac	tcaccaaata	82800
						82860
ccaagaagca	ccaaagacag	ggaggeeega	Legalities	cccgggagca	gagggccaga	
agattcacag	gaaaatggca	tttgagcaag	gatgattcac	tggagctagc	ttttaaatac	82920
tggcgaggct	tttatgttgc	agtcccttac	aaaqttqaqc	attcqcaqqq	actgcactcc	82980
	cgcttcccct					83040
	gtgccttttc					83100
gcgggttctc	ctgaggaagc	agggactggg	gtgcagggtg	aagctgctcg	tgccggccag	83160
cacctataaa	caaaactcaa	acqqaqqaqc	aggagggtc	gagetggage	gtggcagggt	83220
						83280
tgattetgtt	ttttagaagg	gcacaacccg	aagggcaccc	aggggccgga	agecggggac	
	ccccgttcca					83340
gagactgggt	ctgcagcgct	.ccaccggggg	ccggcgacag	acgccacaaa	acagetgeag	83400
	tcgctccagg					83460
	cgatgcgggc					83520
gcggggccgg	cgcttgacct	cccgtgaagc	ctagegeggg	gaaggaccgg	aactccgggc	83580
gggcggcttg	ttgataatat	ggcggctgga	gctqcctqqq	catcccgagg	aggeggtggg	83640
	ggaagaaggg					83700
agreegggee	ggttgctgaa	Lyayyyyayc	egggeeetee	cegegeeagt	ceeeeegeae	83760
cctccgtccc	gacccgggcc	ccgccatgtc	cttcttccgg	cggaaaggta	gctgaggggg	83820
	gagtcaggcc					83880
	aggcggcagc					83940
tgagtgcctt	gctctgctcc	gggactcttc	tgggagggag	aaggtggcct	tettgegega	84000
ggtcagagga	gtattgtcgc	gctggttcag	aagcgattgc	taaagcccat	agaagttcct ·	84060
	ttaagaacag					84120
						84180
	agatcaagga					
aatgttgagg	gttttatgtc	taaaagcaac	acgtgaaaaa	attgtttttt	tcacccagtg	84240
ctgtcttcca	atttcctctt	tggggggagg	ggtagttact	gctgttacta	aaataaaatt	84300
	aaagttcccc					84360
						84420
Ctaactactg	gaaccctaac	ccacaacga	actacttaca	LLLLLGALLL	ccaguiguat	
tacctgccca	atgtttacgt	agaaacagct	taattttgat	tctgggtaac	gttgttgcac	84480
ttcattaaaa	atacatatcc	gaagtgagca	agtatgggtc	tatagacagc	agtgatttt	84540
cctctcaatt	cctgttgctt	cadataaaat	ataccacaca	asaaccaaaa	acaataacta	84600
acgcctgtaa	tcccagcact	ttgggaggct	tggcgggtgg	atcacctgag	accgggagtt	84660
caagaccagc	ctgaccaaca	tggagaaacc	ccgtgtctac	taaaaataca	aaattagcca	84720
gagtagtage	gcatgcctgt	aatgccagct	acttaggaagg	ctgaagcagg	agaatcgctt	84780
gaacceeggga	ggcggaggtt	acaaraaacc	yayatagcac	callycactc	cageeeggge	84840
aaaaagagcg	aaactccgtc	tcaaaaaaaa	agtaccagac	agaaatgggt	tttgttttct	84900
	tgagacggag					84960
ctcactctcc	gctcactgca	acctctctct		atcoattoto	ctacatasaa	85020
	gctgggatta					85080
tagaaacggg	gcttcaccat	gttaggctgg	tcttgaaccc	ctgacctcaa	gtgggcctcc	85140
	tcccaaagtg					85200
						85260
~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~						
	aaaagcacta ggggcagacc					85320

#### -121 of 185-

atgattccca aaggcccatt gaactctgaa tgactttaaa tacttcttct taagtgggta 85380 85440 caeggttttg gtaactgatg ccaggtgatg aatgcatgaa agtgcttaat gaatgaaacc ggtaaaatag taggaggaag ctttattggt aaggcagggg tatacctaat agctctctaa tttattggta ttgaagtggt taacttttgt ttttttaagg ggggaaaaca ttctaagaat 85500 85560 aatgaggcaa actgcatatt gcacaagaga ctgttgtctc tattcaacaa ataccttttg 85620 agtgtccaga gtctgccagg tgctgtgcta ggccctcacg attgagtagt gaaccagaga 85680 atgtccctgc acccatggag cttattgtct actggggtag acagataata aataagcaaa 85740 85800 caaatcttet etettetee tttegeteea tgtaagtgtg tgtgtatagg tgtatactta caagttgagt aaagtgttat gaaagattaa gaggagaaat gcattttggt tagatgttag 85860 aggactcagc aggtgacctt gaaacttaga gctgaaggat cagtaggagg taactagaga 85920 85980 ggccagggaa tcgcatgttc aaaggccagg aggcaagaaa gagcatggtg cccttcaaga gaggaaagaa ggctactgtg actggagcat agatgtaggc aagtgttggg tgattgagag 86040 ctctacgggc catggttagg ttttattcct aatgccgaga tgccaaacat ggtggttcat 86100 86160 atctgtaatc ccagtatttt aggaggccga ggcaggaata tagcttgaac ccaggagttc aagaccagcc tgagcaacat gagacctgta caaaacattt aaaaaattgc tgggtatgat 86220 ggtgcacace tgtggtccca gctactcagg aggctgaggc agaaggatca cttgagccta 86280 ggaggtggag gctacaatga gccatatttg agtcactaca ctccagcctg gatgacaaag tgagaccatg tgtcaaacaa aatacagaaa gaatattaat ttaaaatttt gaaagaggag 86340 86400 tgatctgaac ttatatctta aaaagatcat tctagggcat ggtggctcat gcctgtaatc 86460 aagggetttg ggaggetgag acaggaggat cacetgagge cagttegaga teaacetgta cagcatagag agactecate tetacaaaaa gaaaaaataa atagetgggt gttgtgagtt 86520 86580 attcaggagg ctgaagcaga aagatcactt gagcccagga gtttgaggct gcagtaagct 86640 atgateccae caetgeaaca cagtgagate ttgteteaaa aaaaaaaaa aateatteta 86700 ggtgcttttt ggaggctgga tgtggtaaga gtagaagctg gagatggtcc tgttagggat 86760 togattcaga ctttaaatac catcaatgca ttgagtccca aatttacatc actacgttgg 86820 atcettgece etgaateeag actggtatat ceaactttag gtteagtttg tatetetace tgaceaatat agaggtgtee agtettttgg etteectagg ceaeattgga agaagaattg 86880 86940 87000 tettgageca cacatagagt acactaacge taacaatage agatgageta aaaaaaaate gcaaaactta taatgtttta agaaagttta cgaatttgtg ttgggcacat tcagagccat cctgggccgc gggatggaca agcttaatcc agtagatacc ttcaacttac aatatctaaa 87060 87120 attitatgcc agattiagtc attitaaacc tgctcatcag tttttctcaa gaagtagtat 87180 tttggctttt tttcttttct tttttttgag atggagtttc gctcttatcg ttcaagctgg 87240 agtgcagtgg cggatcttgg ctcactgcaa cctccgcctc ctgggttcaa gtgattctcc 87300 tgcctcagcc tcgcaagtag ctggaattac aggcatgcgc caccatgacc agctaatttt tggagacagg gtttcaccat gttggtcagg ctggttttgt actcctgacc tcaggtgatc 87360 87420 tgcctgcctc ggcctcccaa aggctgggat tacaggcatg agccaccgct cccggctgca 87480 tttttggatt tttagttgct cagcccaaaa ctttagtaca tctttgaacc tcttcttcc tcctactcta tatctgatcc atcagcaaat ctgttaggtc tacctcacac atatcgaaat 87540 87600 cctaccacgt ctcaccatct gtgacaatta acaccctggt ctaggcagtc atctctgtta 87660 agattgagtg gttaaggatg tcctctaagg agatgacatt caaatcttag cttaaatgtc aagagggagc tggttttata aagattgagg aggcagcatt attttgccat aggcttccat 87720 87780 ttggtttcca ttccattctt gatacttatg gtatatattc aaaacaaatg cacagaaaca 87840 gacccaggta tattgggaat ttcggatata gagttcctag ttgggaaaag atagactgat 87900 ctgtaaatga tgctagttat ccatcatctg gcaaaaaata atttcctgcc tcctctcata 87960 88020 tatctcagat caacagactt tttctgttaa gggccaaatc ataaatattt taggctttcc agaccatatg gtttctgtca cactctcctt tatccttgaa gccatagaca atatgtaaac aaatggcat ggctgtgcta cgataaaact ttacttacaa aaactggtag tgggccagtt 88080 88140 taggcatgge cagcactttg ggaggetaag geagatggat caettggggt caggagtttg agaccageet ggccaacatg gtgaaaccet gtetetaeta aaaatacaaa aaatagetgg 88200 88260 gcatggtggt gggtgtctat aattccagct actctggagg ctaagacaca agaatcactt 88320 gaacccagga ggcagaggtt gcagtgagct gagatagcac cactgcactc cagccagggt 88380 88440 gacggagtet taaagcaaaa caaaacaaaa ggtagtgggt tgtatttggc ccatgggetg tagtttgcca atccctgatg cagaaacaaa ttccaggtaa ataagagcct ggaatgttaa 88500 aaaaacaaaa cttgaagtca tgtagaagaa caggtagggg gaacaatcct gatctcagga 88560 88620 taggaaggga tattgcttaa aataagacac aggaaaatat aatccatgtt gtgtaaattt 88680 gactacgtta aaacttaaaa ctttcgccaa gcgcggtggc tcacgcctgt aataccagta 88740 etttgggagg ccgaggtgag cagatcacca ggtcaggaga ttgagaccat cctggctaac acggtgaaac cccgtctcta ctaaaaatac aaaacattag ccgggcgtgg tggcggggcgc 88800 ctgtagtccc agctacttgg gaggctgagg caggagaatg gcctgaaccc gggaggcgaa 88860 gettgeagtg agetgagate gegecaetge actecageet gggegacaga gtgagattee 88920 88980 gtctcaaaaa aacaaaacaa aacaaagcaa aaaacctaaa actttcatac aataaagtat acctaagata cttctagaag agaagattta catccaggac gtgtatggaa tttctgcaag 89040 taataagtaa aagacaaggg acatgaagag gcagttcaca aaagaggaag ccaaaatgac 89100

#### -122 of 185-

caataaacat gaaaggatgt ttaacctcaa aggaaacaag gaaatgaatt aaaaacatca 89160 aatgccattt caaaactagt aagttggcaa aattaaaaat accaaggatg agaatatgaa 89220 gcatggctat atgagtgcat ggaatggtac agtcactttc attaaaaatg cacataattt 89280 gttttttatt tattttttg agacagtcta tgtcgcccag gctagaatgc agtggcatga 89340 tctcggctca ccacaatctc tgcctcctgg gttcaagcaa ttctcctgcc tcagcctcct gagtagctgg gattacaggc acatgccaca acgcccggtt aagttttgta tttttagtag 89400 89460 agacagggtt ttgccatgtt ggccaggctg gtctcgaact cctgacctca ggtgagctgc 89520 ttcccaaagt gctgggatta gaggcgtgag ccaatgctcc tggctgaaaa aaatgcacat 89580 aatttgttac ctagcaattc catgtctaga ggcttatcct agagaaattc ttgcttatat 89640 gcataggaag acgtgtacta gaatgttcac tagttgaatg tttaagtgaa aattaggaaa 89700 taaagtaaat gttcattaac aggaaaatga gtaaaggtat atttataaaa caattaagta 89760 gctaaaatga ataaactaga gctgcgtgaa tgaactagaa ctggttcaat agtcatgtca 89820 gattattgaa tgaatacagg tcagatatgt atagagtgtc atttgtgtaa ttaatttttt 89880 ttttttttt gagatggagt ctcactctgt tgcccaggct ggagtgcagt ggcgtgatct cagctcactg caacetccac ctcctgggtt aaagtgattc tcctgcctca gcctcccgag 89940 90000 tagttgggat tacaggcatg caccaccatg cccagctcat tttcctattt ttagtggcca cagggtttca ccatgttggc caggctggtc ttgaactcct gacctcaagt gttccaccca 90060 90120 acttggcctc ccaaagtgct aggattacag gcgtgagcca ccgtgctcag ccatttgcgt 90180 gatttttaaa gatgtgcaga ataatgccat taaaaaaaat acacatacat qtatatatat 90240 acacgtttgg ctgggtgtgg tggctcacac ctgtaatccc agcactttgg gaggctgagg caggaggatc acttgagccc aggtgtacaa gactagcctg ggcgagatag caagaccca 90300 90360 teteaacaac agaaaggata attaggtatg gtggcatgag aggateactt gageecagga 90420 gttcgagtgt tatcaggcca ctgcactcta gcctggacaa caaagcaaga ccgtqtctca 90480 aaaaaataaa aataaaaagt attigtatgt ggtcatagtc aaaaaacgta catggaagga aaatgtcttt atttatttat ttatttttt tttttaaga cagagtcttg ctctgtcacc 90540 90600 caggetgggg tacagtggtg taateteage teacegeaat eteggeetee egggtteaag 90660 cgattettet geeteageet tetaagtage tgggaetaea ggtaeeegee accaeaceet 90720 gctaattett gtgttttcag tagagacagg gtttcaccat gttggcaagg ctggtetcga actectgace ttaagtgage caccegeett ggceteccaa agtectggga ttacaggtgt 90780 90840 gagccactgc gcttggccag gaaatatcta atttagtaag tatttatatc tgggaaagga agggtcaggt ggtgattcat aggaactcta aagtctatgt ataatactta gggggacaga aggaaataaa gcaaaatgct gatatttgat tgttgagttg tgtatatgtt agaagtataa 90900 90960 91020 cataggagat ctgattgata gtaggagaat gtttttaggt ggtaaaagtg gaaccgtggt 91080 ggtttgtttt ggcagtagaa tcagttggtc atagtttgta tgtggaaggt aataaacaga 91140 ccatgitaag gatgacticc ggaattitgg tetgagtagt gggtggatga cagtgtcatt 91200 catgagggaa gatgaagact gaggtaggaa caggtttggg agaagatgac atgttccctt 91260 ttagacaagt ggaattatgg aagatggcag gtaggtggtt agctatatga atttgagata aaagatttag gatggagata taaatttagg agtaacagcg tatctatggt attgtaagcc 91320 91380 ttaagaatgg gtaggatcag ccaggaaata cagatgtata tgcagaagag aggagtcaag gaagccaaga caagttaatg tttaaagtga gtgatgtagt ccatgggcag atgctgctga gagggctgca aacaccagtg accctacaac atttttaaat gtcgtcttcc tgacagcagt 91440 91500 91560 gatcagtace tgcaacgate ttatttattt ttttcatgtt agtetecaca caettgaatg 91620 tagacttttt gaaggcaaaa tcattgcctt ttctgagctg ggagcatgtc tggcacatac caagcactca acagttgatg tattgacttc atccagatac tctgaggcg agttatttcc 91680 91740 tgctactagc ctttcacctt tcaatgttta agagcacaaa tacagagatg ggcacgtttt ggcatttctt attttgataa ccttttcctg gtaagatttt ttaatgttga aaaaaaaaa 91800 91860 caagaaaaga gggttaaaaa tagtcttatg tcagatcctg tgatagaatt cacacttggc 91920 ttaagetget gggeacette etatettgga tgteatatta gettatetae ageagaattt ttaetgttt atgtagtaag gaageaatta tatgattatt ttaeagaeaa attattett 91980 92040 atettitatt titttagaeg gagietetet tigieteeca ggetggagta cagtgtegeg 92100 atctcggctc actgcaacct ccgcctcctg ggttcaagca attctctgcc tcagcctccc aagtagctgg gcttacaggt gtccgccacc acacccagct cattgttttg tatttttagt 92160 92220 agagatgggg tttcaccatg ttggccaggc tggtcttgag ctactgacct caggtgatcc 92280 accegecting grateceaaa gigetiggaat tacaggeging agreaceging cetinggecean acaaattatt atactetigang tightagange than the transfer getating and the same of 92340 92400 gaataagtaa taagatatga tacacaacca aagacctttc ttcactatgc ttctagtagc 92460 tagtactatg gatgacacat ggtaataata ttggttagca tttgtcctca atttactgtgctagttactc ttctaagccc cttacaggta tatattttt ttcatcaata atcctctaag 92520 92580 gtagttttta ttattgacct aattttataa atcaagaaaa ttaagaccca gagaagtaag 92640 taacttgtcc aagatcacat ggcttataag tggtagagcc agaatttgac cccagatgtt gtgactacat tgtctctcca taagcaggtt caactctttt gactggatgc tgttccaagg 92700 92760 teactteett agagaageet ttgetgacaa etaceeteet gtgeeeteet ecaaggetgt 92820 ccattgttct agaactttga atactcatct tagaataaag ctggtctaat ttttacagtg 92880

Ĵ

# -123 of 185-

· ttatagaato	gatctctgac	tacaaaaatt	cotostsst		attataataa	92940
aaggcaaaga	. acaagagaag	acctcagatg	tgaagtccat	taaaggtaag	ttctgccctt	93000
ggcagtccac	tgcattaaaa	agtgatgtgc	tttqcatttq	tgagttcttt	aatcctqtta	93060
	: tttggcatta					93120
ttatttaaat	ctttaacctg	tataataat	+		-tt-t-t	
						93180
tttttttt	: tttttttgga	gacggagtct	tgctctgtta	cccaggctgg	agtgcagtgg	93240
cqcqatctto	gctcactgca	agctctgtct	cccaaattca	caccattctc	ctgcctcagc	93300
ctcccage	gctgggacta	cadatacaca	acadasaaca	tagataattt	tttatattt	93360
LLagcagaga	. cagagtttca	ceargrrage	cagtatggtc	tcgatctcct	gaccttgtga	93420
teegeeegee	teggeeteee	aaagtgctgg	gattacaagc	gtgagccacc	gcacccggcc	93480
gtaagtagg	ttttttacc	ttaattttat	ttttttgaga	tagagtetta	ctcttatccc	93540
caggetggag	tgcagtggtg	ccatctcooc	tcactacaga	atccacctcc	coacttcaa	93600
0099009909	cgcagcggcg		ccaccgcagc	acceacece	cgggtttaag	
egatteteet	gcctcagcct	eccyagrage	tgggattaca	ggrggccgcc	accatgccca	93660
gctaattttt	gtatttttag	tagagacagg	gtttcaccgt	gttggccagg	ccagtctcaa	93720
actcctgacc	tcaagtgatc	cactcgcctt	ggcctcccaa	agtectggga	ttacaggcgt	93780
gagggaggat	gcctggccat	aagtaggett	ffactgaggg	ttatatatat	toggtatect	93840
22222222	5000550000		ttactgagee	- the - the	tagetateet	
agryarraca	gtgaaccagt	gecettetta	ctaatcacac	atttaattgt	recetaaaag	93900
tgattagttc	actttattta	tttagtaaga	caaaaaatga	agaatactct	taactgagca	93960
	tgtaggaaag					94020
gaagtatggt	tgattacagt	ftttacttt	ttatttgaat	gaacaacctt	aatttaaaat	94080
544554555		teeesteest		gaacaaccec	the	
acaccccgcc	tattttttgt	rgggarcgar	acattgtcct	tgtttataga	ttagagcatg	94140
ctttttaaag	atgctgtatt	actcactgat	tttatttgtc	cagtgtacag	agattgaagt	94200
gggaaaatta	taatggaaat	tgtttccata	gtcattacat	attaatttca	tcaatttatt	94260
tccataaaat	ctgtagattg	ctacttattt	agatttttcc	ttcaaatgtt	tttatattat	94320
attacttaca	ctgagtattt	attetatate	atasatttaa	taaaaaaaaa	coccestes	94380
accecceca	cegageacee	ttoccacacg	cccaacccgc	Lygagaagaa	gactaattat	
	agttgtaaaa					94440
atttcttatg	taaagccagt	tagattccac	attagttcaa	actgccttct	ttgagcaaaa	94500
cttgattggc	agtgataaag	gcttaaagcc	cttctcaagc	agagacctgt	aaagactaga	94560
tctgactgta	gtagaaggaa	ggaacttaga	tatttcaaac	agtgagaaca	ccagtcttcc	94620
actotagact	ttgccactaa	cagtatgacc	ttaggaagtt	gtaactttct	tragattett	94680
catttattaa	atggggggat	tagrateaat	22554450	tatataataa	ccagacccc	94740
tatetate	acgggggac	tggcctagct	aacttttaaa	cecetaergg	gctaaaaaat	
tetgtgetta	tactctgatt	atgaagtaca	taatetgtge	ttaacattca	crgacttatc	94800
cttaggataa	tacagaagca	gtacaagaaa	cagcccctca	agatgtttgc	agtctggtta	94860
gaaagacaaa	cttatacaca	gaacagtagc	aaatagacca	aaataataat	agctgccatt	94920
tatagaacac	ttcttctgtt	ctgggcatta	gacaaaaact	gactataacg	gtgaacaaaa	94980
aagacttagg	tactgacata	attraactta	carattanta	2000000000	acattaatca	95040
aasaattaas	anantagett	acceptacett	~~to~t~	9999494994	acaccaacca	
agcaacccca	cagatggctt	agectagate	ggragrgarg	gaagtaaaga	gatgtgaacg	95100
gacttgaaaa	aaaattcgga	ggcaaaatgg	atagaagttt	attattgatt	aaatatgagg	95160
tgtgagagag	agggatattt	aagattgata	cctaccttct	ggcttgccta	acagaaccaa	95220
aacaqqaaat	tatatgttca	gttttgttat	attagataga	aggtgctttt	gagtcattca	95280
titatatata	ttatatatgt	tattttatat	gcatagtaat	tttaaggtgt	gagttttaaa .	95340
ccaaacctta	gagagtgatt	ttttagagtg	tadaaaaaa	anathanan	gageeeeaaa	
ccaaaggtta	gagagugacu	Lectagagee	Lagcadaccc	aagttgaaat	eetgeetgtt	95400
	tttactagct					95460
gtcttcatct	ctaaaatgag	gaaaatatgg	tcttacaaga	ttgtcctgag	agatagatga	95520
aataatatcc	aaaaaaaaa	aaqqtacata	gagaaactcg	tatagtgcct	ggtatatagt	95580
aggtcctcca	ttggtagcta	tcattatcta	gttttaacat	ageetteagt	ttattaaatt	95640
actopaacto	agtgaagcac	tageaggest	tararaasat	********		
agecadaceg	agegaageae	cycaayyaac	ccagaggaat	LLyayaLlaa	Caaacgaccc	95700
ctgaagttta	gggaagactt	catggcaatg	acacttacct	tgtataaaag	ttgaagaata	95760
agaaagattt	gaatgagaga	ttctttctct	tctccctacc	agcccagctt	cttatttgag	95820
gatatattgg	gcaaaggggc	cttcagacaa	gtagagggag	atttttacag	aaagattgag	95880
atgaaggtat	agaaggctgt	aaagaccaga	aaagagaatt	gararang	aagaagaag	95940
ccactataga	tttttaacca	acapaceaga	actataaata	teetettet	angeaggaag	
teteeseage	tttttgagca	agacaccgac	geegeaagea	Lygigicial	gaaaggicag	96000
cccggaagag	atttgcagga	tggagacccc	ggaagtttt	ttgttataat	acagaaagac	96060
ttgcactgag	ggtgaggtgt	taaaaataaa	caggtaagta	aatgtttaaa	catcttgaag	96120
gaaaagtcaa	caaatcttgg	caagtaaaca	gataacagtq	aaaaaqaatq	ggaccaagat	96180
tttgagtttt	ggagactggt	ggattgaaca	gacagggaaa	ttgagaggag	aatcagatga	96240
tgatgtttt=	agttgatatt	tagagagatt	atacttasaa	3~3~33~3	2250494094	96300
acastactta	atagacact	ataaataata	gogge cagaga	cygcadagcc	aacycygycy	
ggaacyccta	gtagcgagta	accaytgata	caayaccaaa	gcccaggtca	aagacaagtc	96360
acagatacag	atcagggctt	tttcatctgc	tccacagagg	tgtaccctag	gagctgttgc	96420
aaacagtcca	tgtggagggt	gtgagtaaga	tgtttccctt	gaatttgcca	gaattacttt	96480
tttgttgtta	ttgttgtttt	ttctgagaca	gattctcgc+	ctattaccca	agctagaaga	96540
cagtagcaaa	atcgcgcagc	tcactgcaac	ctctacctat	caaattaaaa	toattotoot	96600
acctcaacct		tagasttags	agettata	-gggirrcgag		
ageet	cccaagtagc	Lyggallaca	aaccaracc	accaagccca	getaatttet	96660

# -124 of 185-

tttgtatttt	tagtagagat	ggggtttcac	catgttggcc	agactggtct	cgaactcctg	96720
gcctcgtgat	ctgcctgcct	cagcctccaa	aagttctggg	attacaggcg	tgaaccactg	96780
cacccggtcc	cttgttaagt	ttattttggt	gggaagcaaa	ggaggtttca	gcttttaaaa	96840
agtttgaaaa	ttattgctct	ggtaataatt	aaagatttga	gagtaaatat	gctttctagc	96900
agaaagaata	aaagaagaac	agatagcctc	aagaagggga	gccaaagaag	caggctatat	96960
ctgacacact	gggtgttgat	aaatgggtat	taaaagaatg	agagcaatga	gcagatagaa	97020
gaggaaatta	ggagagtata	ataccatgga	gaccaagaaa	gatagactat	caggaaggag	97080
tggtaaaaat	aagttactag	ttctaagaga	gatgttaaga	qqqaccqqqq	aaagccttgt	97140
acaaatgagt	tagtagcatt	ttacattata	tacatctaat	taagaaacaa	tgcgagagtc	97200
tcaccattcc	tatagactct	tacttgtact	tgtctgaaca	cgaaaactgg	cttttgttta	97260
taaataagct	aaaaattatt	ttgctccaat	ttctcatgaa	aataaaaata	aaccticttt	97320
taacattgaa	aaaataqttt	gaagacagtc	actcttcatt	ttgtaattcc	cacaactatt	97380
attgaatgac	tgaaattatc	tttattctga	agccaaaggg	gtgatactga	tatttcttca	97440
gactactaaa	aatatattt	atgaattttt	agtgtgcttt	atctttttt	attttttt	97500
ttgagatgga	gtttcactcc	cattactcaa	gctggagggc	agtggtgcaa	teteagetea	97560
ctgcaacctt	cacctcccaa	attcaagcaa	ttctcctgcc	tcaatctccc	aagtagetgg	97620
			aattttttgt			97680
ttcaccatgt	togtcaggct	gatettgaae	tcctgacctc	aggtgatgga	cccaccttgg	97740
			gccaccatgc			97800
ctaggttccc	cccaccccaa	gcatttattc	tgcaatttta	attttatta	taaaccaacc	97860
aaggtttaag	catttaaaaa	taatccatat	tttagaatgc	tttctcctt	tattacttt	97920
tatecaeaet	agaagttete	agageatgat	ctccctcttt	taatttaaat	ttttacces	97980
atattttaaa	agaageeeee	agagaacgac	tgttttctgg	ctaatttaatt	tagatastaa	
						98040
agttage	ggccaccegg	gaggergagg	caggagaatc	actigaacat	gggaggcaga	98100
			actccagcct			98160
taaattaatt	ttaatattaa	aaaaaaayay	tgttttcttt	CCCALLECC	accacttgat	98220
aagttactt	ttttttttaa	gratering	ctgagtatgc	tgacttaaga	gtaatgttac	98280
addatttaat	attacaagu	ttttgaaage	ccctttatga	gagttttagg	ctatcaaatt	98340
gigillaatt	tocastast	cccttaataa	ttatagette	aatateegta	cattececae	98400
adadaagcac	taaaaaccac	geeregetgg	aggetgeagg	accaagtcat	gttgcaatca	
atgecattte	tgccaacatg	gactectttt	caagtagcag	gacagccaca	cttaagaagc	98520
agecaageca	catggaggee	geteattteg	gtgacctggg	taagtaacta	tcatttttta	98580
ttaacttgta	ttagaaggat	ttgagtacaa	tatgtgaaac	ttctgtcata	ggatacagaa	98640
ctatataatt	ggaaagtget	ccggaaaaaa	tgtatttaaa	ataacagcta	caagtataat	98700
gggtagetgt	grigigitee	tgtaaatata	gaatataaag	catgcccagt	agaaaaacaa	98,760
gcatttccag	aagaaatata	tctgatcact	aaatataaat	atatgaaaaa	gatgtctcac	98820
tttattactg	agggaagtgc	aaactaaaac	aatcagttaa	tgttctccta	acacattagc	98880
acaccccca	aagtttgaca	accegaatge	cagtgaagat	gcagggaaat	acccctccta	98940
tttagtgata	atataatctg	gtgaagactc	tttggaaagc	aatttggaaa	tcagtataaa	99000
atatgcatgt	catttaggcc	actetteta	agacctagcc	ctcagatatg	ctcattcata	99060
tgtgcaggtg	tgtatgtgtg	tgtgtgtgtg	tgtgtgtgtg	tgtatatgta	tgtatgtatg	99120
tatgtatgta	tgtatgttga	aggctattca	ttatagtatt	gtttgtgata	gcaaaaaatt	99180
atggacaaca	tataaatatc	tgttataggg	aaataaccaa	attgtggtat	acgcatgctc	99240
			tatttattt			99300
tgttgcccag	gctggagtgc	agtggtatga	tcatggttca	ctgcagcctt	cacctcctgg	99360
gcacaagcca	ttctctcgcc	tcagcctcca	gagttactag	gactgcaggc	atgtgtcacc	99420
acacccagat	aatttttaa	ttttttgtag	agacagggtc	tcactatgtt	gcctaagctg	99480
gtctcaaact	cctggcctca	agcaattctc	ccacacaggc	ctcccaaagt	gctgggatta	99540
ccaacgtgaa	ccaccacacc	tggttcagtg	tagccattta	gaaatctaaa	aaagacgtgg	99600
gaaaatgtct	aaggcatgtt	taaatgtgag	aaaagcaagt	cacagtatgc	atggtaaaat	99660
ccgttatatt	aaaataagtt	cttccaaaac	aaaaacatat	gcaggagacc	tttattttgt	99720
cagtatttct	tacccaaatt	tctgcactta	gaaaattqca	tatcatatta	tcataaqttg	99780
aaaaaaagat	ccatgaacca	atggacttct	aataaaatca	atcctacttt	tgacatctct	99840
ctctactttt	gtgtatattc	aaaccagagt	gtcaatgtgt	ttqtqqqqca	cacttagcaa	99900
taatacatag	cagacaaaat	gcatatágct	cagagagtaa	aattgtaagt	tttqctaqat	99960
cactcataaa	ttgctgatga	gaatttaaaa	tggtqcaqat	gctctggaaa	acaggcagtt	100020
tctttcttc	tttttttt	tctttttgag	acagggtctc	actctqttqc	gcaggctgga	100080
gtacagtggc	gtgattacaa	ctcactgcag	cctcaccctc	ctcaggttca	ggtgatcctc	100140
cctcagtctc	ctgagtagct	gggactatag	gcatgcacca	ccacqcctqq	ctaatttttg	100200
tattttttt	tttttttt	gtagagacgg	ggtttcgcca	tgtttcccag	gctggtctca	100260
aactcctgga	atcaagcgat	ccacttgcgt	aggcctccca	aagtgctggg	attacgggcg	100320
tgagctactg	tgcctggcct	aggcagtttg	tttgtttgtt	tatttattta	tttatttatt	100380
tgtagacqqa	gtctcacagg	ctggagtgca	gtggcccaat	ttttqqctca	ctocaacctc	100440

#### -125 of 185-

cgcctcccag gttcaagcta ttctcctgcc tcagcctcct gagtagctgg gatgacaggt gcctgccata atgcctggct gatttttgta tatttagtag atatggggtt tcaccatgtt 100500 100560 ggtcaggctg gttttgaact cctgacctca ggtgatcagc ccgcctcggc ctcccaaagt 100620 gctgggatta caggcatgag ccgtcatccc tggctggtgg tttcttatga cgtgaaacat 100680 gcaattacca tatgacctag cagttgcact ctgtatttat cccagataaa tgaaaactta 100740 ccttccaata aaaacctgtg cacaaatgtt catagcagct taatattgaa aaactggatg 100800 ttetteagea ggtgaatgaa etggtteatt eataceatgg aataceatte ageaataaaa 100860 aggaacaaac tgttgataca tttaaccacc tggatgaata tcaagggaat tatgctgtca 100920 gacaaaaacc agtccctaaa gactacatat agtatgattc cgtttggata atattcttga 100980 aatagagaaa ttaagagaaa tgaaaagatt agtgtttgcc agatgttaga gacagggagg 101040 tgagaggggt aagtgggtgt agttataaaa gtgcaacatg agggatcttt gtgatgttga agttgtatct tggcagtgga tgcagaaatc tcaatgtgat aaaattacaa agaactaaaa 101100 101160 acaagaatga gtatagataa aactggggaa atctgaacaa gttagagtgt tgtatcactg 101220 tcagtatctt agagtgatat tgtactatag ctttgcaaga tgttaccatg ggagaaacta aagtgtacaa gggatctcta ggtattatta tttttttaga gatggggttt cactatgttc cccaggccgg tcttgaactc ctgggctcta gtgatccgcc tgccccagcc tcctaaagta 101280 101340 101400 ctggaattac aggcgtgagc gaccatgcct ggccctttca gtattgtatc ttagaacttc 101460 atgtgaatct agcattatct catagaattt aattaaaaga aattgtaaac ctcacagaag 101520 atcagaattt cctcaagttt gtgatgttga caaagatgaa ctagttgaca ctgacagtaa 101580 gactgaggat gaagacacga cgtgcttcaa aaaaatgatt tgaatatcaa tggattaaga 101640 agaactettt tgacaaattg atgaaaceet cagteagttt tataagaatg eccatettta 101700 tgatcatgct atgaaagcca atttttaaaa aaattttttg tctttcctaa caattagctt gtggttataa tttaaattta gttaaatata agataaatga ttttttatta agtttagttt 101760 101820 cattittcaa ggtacgatct caaagctact cittaaccta ctatgaatga ataatgctga 101880 gttcataaca tctttgtaga tatatccaca attttccctc aggataagtg cctacaagtg gaattactgg actgaaaata atgcagtttg ctaagacttt gctatctgtt cctgaatgct 101940 102000 cctccaaaaa ggttttgcca gtttacatcc tcatgaccag cgaatgagag tgttgcctat 102060 tttcctgtgc ccttgttact gcttaataat ttttgaaaaa aatctaattt gacagacaaa 102120 aatgcatttt atgttaattt gcttttctgg gatttttaat gaggttgagt atagtttta atatttttat tggccccttt ggaactagta tcataagttt tttttcttaa gaatttatgt 102180 102240 agtetggget gggegeagtg geteaegeet geaateceag caetttggga ggcegaggtg ggtggattge egaaggteag gagtttgaga ceatectgae caacatggtg aaacegaate tetaetaaaa gtacaaaaac tageteageg tggtggeggg tgeetgtaat eecagetaet taggaggetg agteaagaga ategettgaa eecaggaggt ggaggttggt tgeattgage 102300 102360 102420 102480 cgagatcgcg ccattgctct ccagcctagg caacaagagt gaaaagtctc aaaaaaaaa 102540 aaaaaaaaaa aaaaaagaat ttacatggtc tgaattgcca ttaaaagaga tatgagaatt attgagtaac aaataacttt ttaataattt aggcaagttt tggacgattg tactttgttt 102600 102660 102720 agaaaccaaa agcatagtat ttgtagtttt tttatttact ttagttgcta ggaagtaaac tttattcaag gtctctggta ccagttgttg ctaaaagtga ttgactaatc tgtcaatctg aaattatttg ttgctgaact gctaattctt ttgcttctat cttttaggca gatcttgtct 102780 102840 ggactaccag actcaagaga ccaaatcaag cctttctaag acccttgaac aagtcttgca 102900 cgacactati gtcctccctt acttcattca attcatggaa cttcggcgaa tggagcattt 102960 ggtgaaattt tggttagagg ctgaaagttt tcattcaaca acttggtcgc gaataagagc 103020 acacagteta aacacagtga agcagagete actggetgag cetgtetete catetaaaaa 103080 gcatgaaact acagcgtctt ttttaactga ttctcttgat aagagattgg aggattctgg ctcagcacag ttgtttatga ctcattcaga aggaattgac ctgaataata gaactaacag 103140 103200 cactcagaat cacttgctgc tttcccagga atgtgacagt gcccattctc tccgtcttga 103260 aatggccaga gcaggaactc accaagtttc catggaaacc caagaatctt cctctacact 103320 tacagtagec agtagaaata gteeegette teeactaaaa gaattgteag gaaaactaat 103380 gaaaagtgag tatgtgattt tettgtgtgt acatatgtgt etcactttet ttttttaatt 103440 tactaagcag aacttcagat gaggaataaa atgattggaa tattttttt ctcctctaac 103500 tacttgtaaa tttgggagaa tttggagagt gtagtagagt cagatcagtg tatggaaaag 103560 gagcaggagt gactggacct tctaagaagt gtgttatcag aattagtaaa tgaagggtca 103620 aatgtcctac ttttcccctc cactgatttt gacatcaaac cattatccac atagccttat 103680 ttcctccctc ggtcttaatt ttattaatat tttactgcac tttgcagata aaatttttaa 103740 aaaattttta aaaattgcca ataagtgaca tttattaagt tcagtgctta gtgtatattt 103800 ggattttatt tattagicac aagacetttg tgcaggtagt aggcatgatt atetttttt 103860 ttttgagatg gagtettget etgtegeeca ggetggagtg caatggegeg gteteggete 103920 actgcaacct cegggttcat gccattctcc tgcctcagcc tcccaaatag ctgggactac aggcgcctgc caccacaccc ggctaatttt tttgtatttt tagtagagac ggggtttcac 103980 104040 catgttegec aggatggtet egateteetg actitgtgat eegeetgeet eggeeteeca 104100 aagtgctggg attacaggca tgagccaccg cgcccggact gattatctta tttacacatg agaaaaccag ggcttagaaa ggttaggtaa cttcctctag gttgtacagt aaatgtggac 104160 104220

#### -126 of 185-

ctagaagcat tttgacaaga gcacctgttt ttttttcttc tctattagtt tagaaattat 104280 atactettaa ttateacetg ggatttigat tagacageet teatgttett ttteatetta 104340 aatgttettt gtgtettaaa gggetaagtg atttetteag atettttagt teacteatte 104400 tcagtgaact aaaatgaggt ctaatctgct actgaatcaa gttttcagca tgttatttcc 104460 ttecteecte ceteecteet teetteecte aaccaggete eegaggaget gegattacag gegeeegeea ceaeteetgg etaattitta tattitagta gagaeggggt tteaecatgt 104520 104580 tggtcaggct gatcttgaac tectgacete aagtgaceca cetgeetegg ceteccaaag 104640 tgctgggatt acaggcatga atcaccacac ctgacggcat gttattttca tcgcaaagtt actgtaagct gggagaagtg gcacacactt gtactcccag ctactcagga agcttaaggt 104700 104760 gagaagattg cttgagccca ggagttttga gaccaacctg ggcaacacag caagaccca gctcaaacaa agaaaaaaag ttattgaatt ttttatttct atggatcatt ttttgtagtt tcttattcct ttcaccctc attcccactt ttgatcccat cttttattta tttagtttta 104820 104880 104940 ttaaatgtat atttgtctga taattctgct atctacagtt ttttgtggac ctgactcagc 105000 atttettigt tietteggat teagacigit ggtggetigt gattitagig attitiggee gtgaacatgt tiettggaet titgtetgig ggaattetet gigtactetg tataaattaa 105060 105120 gttacttcag gtgttttgca ttttcttttg ccatgcacct ggggcctggg tcactaccct 105180 totggtacca ottaaaactg aatttttgto ttgggtgoto gtactgatoo tgtatgagta 105240 caggittata citacigtag aaatatggtg titgattatg gggtattgtc ccagatggtg ctggagtatt aatatgctct ctgttaaact taatgtgttg tccctgtaaa actccaaaat 105300 105360 totgaattoo agaatactao tggocccaaa tgtttaagat aagggcactg cotgtatttg 105420 tttctgcctc ccactatttt ccttagttta acacaaactc acctttttaa aaaacatttt 105480 gagagaatto agtattggga agagtttota acctgtttot ggaaatggaa gtocaaagto tgtttotgta attgttttt ttttgagatg gagtotoact otgtcacoca ggotggagtg 105540 105600 caatgacgta ctctcagctc actgcaacct ccacctcccg ggttcaagcg attctcttgc ctcagcccc tgagtagctg ggattacagg tgcccaccac catgcctggc tgatttttgt atttttagaa gagatgggt ttcgccatgt tggccaggct ggtcttgaac tcctgacttt 105660 105720 105780 gtgatctgcc cacctcagcc tcccaaagtg ctaggattat gtttctgtaa ttgtaataca 105840 tttattgttt ttagaaactg tctttgcttt agtggtaatt ttcaataaaa atagaaatag cagtggagtt attaaaagag cattagttac atttttccct ttttcattat cttcaaaatat 105900 105960 tatatatagt aagtttgacc tttttaaaat gtatacttgt atcagtttta acacatacat 106020 agattcctgt aactgtcacc actataaggg taaagaacag ttagttcctt cacctttgaa gtcaagccc acctctatcc caacacttgg caaccgctga tctttctccg tctcaatagc tttgccttt ctcttttt ttcttattt tttttttgag acagcgtctt gctctgtcgc 106080 106140 106200 ccgagctgga gtgcagtgag gcaatctcgg ctcactgcaa cctccgcctc ctgggttcaa gcagttctcc tgccttagcc tccctagtag ctgggattat aggcacgcac caccacacc 106260 106320 ggctgatttt tttgtatttt tagtagaaat ggggtttcac catgttggcc aggctggtct 106380 caaactettg acctcaagtg atccacctgc ctcggcctcc caaagtgctg ggattacagg 106440 cgtgagccac tgtgcccaat caggactttt ttttttaaa tttacattca acttgtcatt 106500 tttttcttgt atggattgtg cettcagagt cacacctaag agccctttgc ctaagcaaag gtcatgaaga ttttctcata tgtttccttt taaaagtatt gtggttggcc aggtgccatg 106560 106620 gcttatgcct gtaatctcag cactttgaga agctgaggtg ggcagattac gaggtcagga gatcgagacc atcctggcta atgcggtgaa accccatctc tactaaaaat acaaaaaaaa 106680 106740 aaaaaaatta gccgggcgtg gtggcgggca cctgtagtcc cagctacttg agaggttgag 106800 gcaggagaat agtgtgaacc cgggaggtgg agcttgcagt gagccgagat cgcgccactg 106860 cactecagee tgggcaacae agtgagaete cateteaaaa aaaaaaaaa agtattatgg 106920 ttttacactt tacgtttaga tatatatctt ttttgagtta atgtcgtata agtatgaggg 106980 ttacgtcaga ttttttgttt tttgtttatt tttacatatg gatgtctagt tgttctaata ccatttgttg aaaagacaac ctttactcca ttgaattgcc tttgtacttt tgccatattt gtctaggcct gtttttggac tccttttct gttcatgat gtgtgtgtct attccttgt 107040 107100 107160 taataccaca tggtcttaat tactgtatag taagtcttaa aattgggtaa tgctggcctt 107220 ataaaacgaa ttgggaagtt tttattttta ctcttatttc cattttctag aagagattgt 107280 gtagaattgg tgtcatttct tctttagata tttggttgaa ttgggaagtg atgccatctg 107340 ggcctagggt titgtttttt gtgtgtgaga cagagtcica ctictgtcac ccaggttgga 107400 gtgcagtggt gagatettgg ettactgcaa eetetgeete eeaggtteaa gttateetee tgeeteagee teecaaatag etgggattae aagegtgtge eaccatgeee gaetaatttt 107460 107520 tgtattttta atgcagacag ggtttcacca tgttagccaa gctggtctcg aacttgtgac ctcaagtgat tagcccacct tggcctccca aagtgttagg attatagatg tgagccaccg tgcctggcag gggcctaggg ttttctttt cagagtattt taaactatga attcagatta 107580 107640 107700 tttaatagat ataggactat ttaagttatc tgtttcttct tgagtgaatt tttactgtag 107760 tttatggcct ttgagtaatt aattgtattg aattgtcaaa tttatgagcg tgtaattatt 107820 tatagcattt cgggtttgta gtggtatccc tcttttattc ctggtgttgg caattgtgtc 107880 ttgtttttct ttgtcagatt gtatagggat ttattagtct tttcaaagaa ctagcttttg
ttttgatttt tctgttgttt tgttttcaat tttattgatt ttctgctctt tattatttct 107940 108000

# -127 of 185-

tttctattat	ttetaettae	tttgggttta	ttttactctt	tttttttct	ccaaqttqct	108060
		ctggtttgag				108120
				cccaagacaa	geacetaata	
		actgctttag				108180
ctgagcacaa	atgaaatgtt	ctaatttccc	ttgaatctta	ttcttttacc	aatgaattat	108240
ttagaaatat	gttatttagt	ttgcaagcaa	ttqqaqactt	ttttcctqtt	atttttctac	108300
catitatttc	tcatttcatt	atattatggt	cagagaatat	attttgaatg	atttcattta	108360
******	22224224	*****	tttaaaatat	accegaacg		
LLAALLLLLA	addaladcal	taaaaaattt	tttaaaatgt	gaatatacca	cacacagtat	108420
aaagattgta	cattctgttt	ttggacagtt	ttctataaat	gtcaagttga	tttagttggt	108480
taatgatggt	gttcagtttt	tctttattct	toctoatact	ttgtatgcag	ttatatcact	108540
		gaactttcca				108600
		catgtatttt				108660
		aattgcctgt				108720
aattttcctt	gttctaagat	cagaaatatc	tgttgtccaa	tttatataga	cactgcagct	108780
ttcatttqat	tagtgcttgc	atggcatatc	tttttccatt	tttttacttt	tgatctacct	108840
		ggcttcttgt				108900
		tttatttatt				108960
aagctggagt	gcagtggtgc	aatcctggct	taccacaacc	tccacctcct	gggttgcagt	109020
gattctcctg	cctcagcctc	ccaagtagct	gggattacag	gcacgcgcac	catgcctggc	109080
tgatttttg	tatttttagt	agaaacggat	tttcaccatg	ttagccaggc	tcgtcttgaa	109140
		acctgctttg				
						109200
					cagggttttt	109260
gttggtaaat	ttaattattt	taatataaat	tttagtataa	ttatttacat	taaatgtaac	109320
tqttqcactq	gggtatttat	aatgtgtaaa	tataattatt	ggtattaata	taattatatt	109380
actcataata	atattaatat	ctttggattt	agattaccag	tttagtatat	attttctat	109440
		cttttttgct				109500
tagtatttgt	tgatcattct	tgggtgtttc	ttggagaggg	ggatttggca	gggtcatagg	109560
acaatagttg	agggaaggtc	agcagataaa	catgtgaaca	aggtctctgg	ttttcctaga	109620
cagaggaccc	tgcggccttc	tgcagtgttt	atatecetaa	gtacttgaga	ttagggagtg	109680
		tgctgccttc				109740
		cctgagtggt				109800
gggggtaagg	ttatagatta	acagcatccc	aaggcagaag	aatttttctt	agtacagaac	109860
aaaatggagt	ctcccatqtc	tacttctttc	tacacagaca	caqtaacaat	ctgatctctc	109920
tttcttttcc	ccacatttcc	cccttttcta	ttcgacaaaa	ctaccatcat	catcatggcc	109980
cattatast	gaggagtattag	gtacacctcc	ananaaaaaa	accountage	caccacggcc	
						110040
cctcacttcc	cagatggggc	agccgggcag	aggcgccccc	cacctcccag	acggggcagt	110100
ggccgggcgg	aggcgccccc	cacctccctc	ccggatgggg	cggctggccg	ggcgggggct	110160
		gacggggcgg				110220
		gccgggcggg				110280
caactaacaa	22222222	tcctcacttc	330030000	cacatacaca	223223333	110340
tcctcacttc	tcagacgggg	cggccgggca	gagacgctcc	tcacctccca	gatggggtgg	110400
cggtcgggca	gagacactcc	tcagttccca	gacggggtcg	cggccgggca	gaggcgctcc	110460
		cggggcagag				110520
cadacadada	cactcctcac	ttcctagacg	dastadasad	cadassasaa	tactactasa	110580
LLCCCagacg	ggggggcgg	tcagaggggc	ccccacate	ccagacgatg	ggcggctagg	110640
cagagacgct	cctcacttcc	cggacggggt	ggcggccggg	cagaggctgc	aatctcggca	110700
ctttgggagg	ccaaggcagg	cggctgggaa	gtggaggttg	tagggagctg	agatcacgcc	110760
actgcactcc	agectgggca	acattgagca	ttgagtgagc	gagactccgt	ctgcaatcct	110820
gacacctcaa	daddccdadd	caggcagatc	actoggggtg	addadchdda	ascesacea	110880
33000000033	3433003433	tataasaasa	accegeggee	aggageegga	gaccagcccg	
gecaacacag	cyaaaccccg	tctccaccaa	aaaatgcaaa	aaccagtcag	grgrggegge	110940
gtgcgcctgc	aatcccaggc	actctgcagg	ctgaggcagg	agaatcaggc	agggaggttg	111000
cagtgagccg	agatggcggc	agtacagtcc	agcctcggct	ttcacaactt	tagtagcate	111060
		gagaggaga				111120
ggarrarry	aaccucccc	taaatttatt	tatettaett	attlatttat	cccccgage	111180
yatteteetg	ccacagctcc	caagtagctg	ggactgcagg	catgtgccac	tacacccagc	111240
taatttttt	gtatttttag	tagagacagg	gtttcaccat	attggccagg	ctggtcttga	111300
actcttgacc	tcaaqtqatc	cacctgcctc	ggcctcccaa	agtgctggga	ttacaggcgt	111360
dadccaccat	accetacett	tttctagaat	ttatatata	agttettet	totatott	111420
tatata	been and an	bb ob ob o	Lacatatig	aguiculgat	cycacticit	
Lacycagget	cccagcggc	ttctctagga	actacaatat	acatacttt	cacagegeac	111480
tcacatttaa	tattttgtaa	cttcaagtgg	aatgtagaaa	acttaaccac	cataaaaata	111540
gaactaggga	tgaggttaaa	aaagagagag	aaaaqaaatq	taataaagat	ttaataacac	111600
cattttttt	tttttttctc	tttttttt	dadacadad ₊	ctctctttct	attaccadae	111660
tggagtggag	taccatasta	ttaactaact	gasacayayt	astcata	tanaatatt	
	-gg-g-ga-c	ttggctcact				111720
~+~~		gtagctggga	<b>L</b> L			111780

# -128 of 185-

tttttatatt	tttagtagag	acggtttcac	tatattaacc	aggatggtct	cgatttcttg	111840
	tegeteteet					111900
	agtctttaaa					111960
attttagtaa	ageceetaaa	acttttcttg	ttatttaaaa	acttactac	ccccccagg	
attitagiaa	cccaaatgtt	agettegeta	Lightinggea	ggtttttgag	gettteetta	112020
CCCCCCCaaa	tttttttc	cigiligitica	gcttcgaaaa	tttctattca	tetgtettea	112080
aattcactgg	ttctttcccg	ttatttccat	tctgttattg	agtctttgta	gtgaatttta	112140
aattttgttt	attatgtttt	ttagttctaa	aattttcttt	ttttgtgtat	gtcttatact	112200
ttgctcctga	aactcttatt	tgtttcagga	gtgatcttat	ttcttagagc	atggttttag	112260
tagctactta	aaatttgttt	tatcatccca	gcatatgtgt	cctcttgatt	gtcttttctc	112320
ttgtgagata	atgggatttt	ctggttcttt	atatgacaat	taattttgga	ttqtatcttq	112380
gacagtttga	cttacgttac	atgattctga	atcttotta	aatcctgtgg	aaaatattga	112440
agtttttgct	ttaacaagca	gttgacctag	ttaggttcag	tccacaaatt	chaagcagca	112500
ttctatcaac	tctggttcca	tcatcagttc	agttttgtat	cttatctcct	tatotocctt	112560
	gtctgggacc					112620
accasacaca	atgcacaccc	acctcaccag	teaggeeeea	aageceeege	acactectag	112680
ttttastaa	atguatatte	tatatastat	cggccccggg	agigeacata	taactegatg	
	ctccttctt					112740
	tttcctgttg					112800
	tgtagctatg					112860
gtttctcttg	tcagaaagta	ggattcttgg	agctgctgtc	attgctgctg	tggetgetet	112920
gatgctgcct	gggagtcgaa	ggagagaaag	gaacaaaaca	aaacaaccca	ggggatttcc	112980
tccactctct	ttgatccgtg	agagccccct	ttcctgttcc	tcagaccaga	aatagagggc	113040
	acttcttctt					113100
	ggacaaactt					113160
tcagtccacc	tgcttccaag	tccttggatg	catttotcca	ttattttaaa	ttgcattcca	113220
taggagagag	agaagagtgt	gettatttea	tetteacata	cttattagga	tttcatatca	113280
aatcaacgga	tgatattctc	tatattaatt	tactattttc	cctttaccaa	acacattaga	113340
	tttaacaccc					113400
tttttt	tttgagacgg	actotoacto	totaatttaa	caactactaa	cactigacti	
ttactacaca	atasatastt	ttatatta	tgccccccga	ggcaccgccc		113460
thebanks	atcaataatt	nathantatt	tecacacaag	cccaccata	aaccegacge	113520
ttattettee	attttagcag	aactcatgtt	geteeaatag	gggctgtett	caaactgatg	113580
LUCTUCUUL	cttagtgcct	cagagtagat	cetgtteaga	tacgttataa	caggitaata	113640
tgagtttatt	ttggtgtaaa	agtacttga	aattcatgca	tagtttttc	accatatgca	113700
ttttccatag	ctttgaacac	ccccatgtaa	ctctcctctt	ccacaaacca	aacaatgaaa	113760
	gtgatggaag					113820
	tataattcat					113880
	caggtataga					113940
	aaccaatacc [,]					114000
tgcttgaaac	tatggcaaaa	aaaaaatgac	aaaaaatgca	cagaactgac	aattttcgtt	114060
attgactaag	ataattttt	cttaacatgg	aatttagcag	ttcccttcct	aatttgtttt	114120
	tttatatcgg					114180
cgagggtctt	tgcctgggcc	agatgggctg	cagtgtagcg	ggtgctcagg	cctgcccgct	114240
	cgggccggcg					114300
	cgcaccagtg					114360
	aaaagccggt					114420
cacgaccagt	gggcaactgg	atggccagac	aggtgtctca	ataataacct	ctccctctca	114480
gggcttcatc	ccacttctca	atagacetaa	catecetaaa	caccctggat	atctacctac	114540
attagccaga	gccatcacat	gacctataac	ttaccttttt	ttaccaatta	attataccac	114600
accagocaga	atttctgtgt	catttgggg	agetgaaget	ccaccaacca	accycyccac	114660
	ccagtttcac					114720
	aaaaaaaaa					114780
	aatgacagca	_	_			114840
teccagacaa	tattccaagc	actttttatg	gatagactca	ttttaacttc	taaagaactt	114900
tgtgggataa	atacagttat	tttatagatg	aagaaactga	agcacagaga	agttaagtgc	114960
tttgtccagg	gtaacagctc	agatatggca	gagtcaggat	ttgaaactag	accctcacat	115020
accttaactg	ctgtgctgtg	gcagtgtttt	tcatactgta	ggttgggacc	agccttctct	115080
tatgccctca	ccccctgcca	aaaaaaaaa	aaaaaaaaa	aaatatatat	atatatatat	115140
atatatatat	atatatat	aatatatata	tatataaaat	atatatatat	ataaaatata	115200
tgtattagta	tatatgcata	tatagtatat	attatatatt	agtatatata	ctaatatata	115260
atatacatat	tagtgtgtgt	atatatatat	atactagaat	aaaaaaatca	aagtatctca	115320
gagtaqtaaq	gacaaacatt	tcagaaaaat	qttttcatta	tatatacato	tatgtatgta	115380
tatgctgatt	caacaaatat	atttcttata	ggttatagca	aaatagtttg	aaagctttta	115440
ctgtgtttta	tcaggaagac	cttaggtgaa	cotatattca	cagataaaag	aggttattta	115500
ttcattcaat	aaatattaca	ttctcataag	tcctaatatt	atgtattttt	attetteaaa	115560
				55		

# -129 of 185-

aaaqttaqta	tttgtgattt	atqaaataaq	acatqttctt	gcacttttag	cagatctgtc	115620
	gcttctttaa					115680
	cctgttagtc					115740
	ggggtccatg					115800
	ggctataaca					115860
tatttaaggg	gtactgtttc	actgagtttt	gctgacagat	gttgtcatga	gatttgaggt	115920
	gttgctctat					115980
	gtaatacaac					116040
ttaattaaat	Scaacacacac	ttttaaaaa	agactgatta	gageeegeee	geeegaagaa	
	agtgatttt					116100
tgtggataaa	aaggaagcag	tttcaagtca	aataaaacac	ttaaaatgaa	accacactgc	116160
aactctcttt	cttttactta	agcttaatca	aattaatgat	gatgtaatcc	catgaaggaa	116220
	aaggatcaag					116280
	ctatcattat					116340
tcatttttcc	tccttgagcc	ccattcttaa	tectatecaa	attatttata	tectetteea	116400
attacaetat	tttaatataa	atataattaa	actoractet	attactege	cocttoogea	116460
	tttaatatag					
tagctcttac	tgtgtaccca	ctttgcatag	tettgtttta	aatgtaatcc	ttggatttt	116520
ggtgttgcta	actaattact	gtttttatgt	gaggatttag	agtgatccag	aatctatact	116580
tgcactacct	ccttcatctt	ccacaaatgt	ttgaagtggt	agaattttta	aaaactttga	116640
	gacagaattt					116700
	atgactgcat					116760
						116820
	ggctggagtg					
ggttcaagcg	attcccctgc	ctcagcctcc	caagtagctg	ggactacagg	cgctcgccac	116880
cacgcctggc	taatttttt	ttttgtattt	tagtagaaac	ggggtttcac	cgtgttggcc	116940
aggatggtct	ccatctcctg	acctcatgat	ctactcacct	tggcctccca	aagtqctqaq	117000
	tatatataag					117060
aaacatggag	tccacacagc	taataaaat	gagagaga	tassacas	attastatea	117120
						117180
	agttgttaca					
	attgcttaga					117240
gcagtacacg	ggtagagatg	caggtgagtt	gaaagatgtg	agagatgatg	gaaataattt	117300
tctgattgct	tctatattct	caaggaagca	ggaagcaaag	tcctcagcaa	agagaataga	117360
	aatatttgag					117420
	tctcacaaaa					117480
						117540
	ccaattctgc					
	tctcacactg					117600
	agactgcctc					117660
cttctgactg	accttctata	aattggagtt	cccacagtcc	cctccttggg	ttcaataaat	117720
ttgctagagc	agctctcaga	actcagggaa	atgctttaca	tatatttacc	catttattat	117780
	acaaaggata					117840
	ggcacagagc					117900
	agctattcag					117960
	atataggcat					118020
cccctcatcc	cgggaggttg	gtgggtaggg	ctgaaagtcc	caaacgtgta	attctgcctt	118080
ggtctttctg	gtgattagcc	ctcatcctaa	agctctttag	aggccacagc	cacaagtcat	118140
	ttcaaaagaa					118200
	ggccagttgc					118260
	tcgtttcagg					118320
						118380
	aatttaaaaa					
	gaggatcact					118440
cactgactcc	ggcttgggtg	acaaagtgag	accttgtctc	agaagaaaaa	ggaaaaaaaa	118500
aaaactgggc	aaagactaaa	taacatattt	cacagtatca	cagatttgta	ttgtctagga	118560
aagtgaatgt	aaacagacca	ggacactagt	atgatccctt	ggtttcatga	aggtcccact	118620
	acacaaagtg					118680
						118740
	taaatagcta					
	tgttttaaaa					118800
	ccataatttt					118860
	ttttaaagtt					118920
gtatccccac	taacactagt	gttagttttc	ttgtgccctt	gctcaagtat	acatattatt	118980
aaaaacaato	ttgggccagt	ttactagata	aaaggtgtag	tacctectta	ttctaatcta	119040
	agtgagtatg					119100
	tgtcctttgc					119160
	tttaatgata					119220
	cctttgtatt					119280
tgttgttaaa	tettttgatt	tctgcttttg	catatgtact	tcaaaagact	ttctatttta	119340

# -130 of 185-

		•				
agatcaagtg	ttacctgtat	tttcttttag	ttctatttaa	aacctcttaa	tttatatgcc	119400
tgtgctgtta	actcccaagt	tgattcacaa	gtgtgtatac	atagtttgaa	tttagtggca	119460
atttaattat	ttacaacttc	ttttgcagca	aggatttgtg	gagaagatgg	acaggtggat	119520
cccaactgtt	togttttggo	acagtccata	. gtctttagtg	caatggagca	agagtaagtt	119580
agttcatatt	ttcacattgt	gcatcctagg	gaatttgggt	tcattgttag	gaatgggctt	119640
cactcagcta	. aaaacaaagt	atttttgaga	atttaaatat	tttggatatt	tacaagatca	119700
tataaagcat	actctatctt	ggttaacagt	ttcttttaaa	tataaattat	gtgaactctt	119760
aaaattttca	. ttttcatttt	caatgttaat	atttcctaag	ttaaaataat	ttgtttttag	119820
ttctgaaata	. atttggggag	tgattgagtc	tgtagtgatt	atgactatta	gaattggttt	119880
atttatttaa	_, ataatgcatg	tcttcagatg	gctctcctaa	tttgttagtt	aggctttaag	119940
			tagatttgtt			120000
			aaaaatctat			120060
			ttaggcatag			120120
					gtggcatgtg	. 120180
			aaaaaggtgg			120240
aggaatcagg	aatgacacca	tggggagtaa	ggtagtgttg	acctaggcct	ttaagataca	120300
atagggacag	tatggaaaga	gtatatttt	cccacttaaa	ctctttcctt	ggtcgttccc	120360
tcaaattttc	ccttttgtcc	atgtgcaggc	actttagtga	gtttctgcga	agtcaccatt	120420
tetetaaata	ccagattgaa	grgcrgacca	gtggaactgt	ttacctggct	gacattctct	120480
tetgtgagte	agccctctt	tatttetetg	aggtaaagtc	tgcatttctt	ttcacactct	120540
attegageat	tccagcctct	aactatcaat	gctggggccc	tgtctatagg	aaataacaca	120600
			tcattgtttc			120660
			gaaaattcaa			120720
			agagagtgca			120780
202202222	aaaaataata	aatttttat	ttccagtgca	taaattgcag	accagacttc	120840
			tatgctcatc			120900
			acagacaatg ggcttcaaca			120960
			tcccagtctc			121020 121080
			tactcagttq			121140
			tttaggttaa			121200
gaaatgatca	gatataaaat	atttaattta	gttagtttac	tetttatate	tttactaaca	121260
aggaaccaca	aatccagttt	agtataattt	ttactctagt	tcactagaag	tttqcatcca	121320
actatataga	tagtatttat	ttcttgttaa	ctttttttc	gtctaaaaga	atactttaaa	121380
acttttcaat	ctcaaatgac	tgtaacttgc	tgacaggtgt	taacagaaga	agtagatett	121440
tttqttttt	gcttatgacc	tgtattttaa	tatttgagct	tatagattag	agattgtgag	121500
agaaatctgt	ttatagtctt	attttccctt	gtgtattttt	tcttcctagt	acatggaaaa	121560
			gttggcagca			121620
tgctgccaaa	aagggccaat	atgatggaca	ggaggcacag	aatgatgcca	tgattttata	121680
tgacaagtga	gttatattga	tagatggatt	cagcagatac	ttattgaaca	tttgatatgt	121740
tttgtggaaa	taaagatgaa	taaactcagt	ctctgttgtc	aaqqaqctca	caggaggcag	121800
cataaaagct	gcttttatat	ggtgtttgta	aagctttggg	ggttcttaga	acaaaagttt	121860
ctgctgggaa	aggggaggtg	tatgtggggt	aaacaggatg	gcaatggtgg	tgttcaagga	121920
gtgtttccca	gaagagagat	tttgtttgga	tcccaaagaa	agaagggaat	tttgctaccc	121980
agagaaggca	gaaaacaaca	ttctaggcaa	aggcattggc	ccagaagcca	tggaaacgta	122040
ggggaaagtg	gcactttcaa	gaaacttgag	tttagataat	caaaggagtg	gggaataaat	122100
atgaggatgc	tggtactaat	tggaatagat	tgtaagggac	cttgaatgcc	tatttatggg	122160
tatattatac	tttctgtata	aatctgctca	ggcacgttgt	taattagttt	tttattagtt	122220
			tacagtaaac			122280
aggcagatga	tgagettgtg	gccagctctg	taacgtatgg.	tattctttc	atttaacttt	122340
tcttactctg	taaaaaaagt	aattcgtggt	cgggcacggt	ggctcactcc	tgtaatcaca	122400
acactttgag	aggcagaggc	aggtgaatcg	cttgagccca	ggaatttgag	accagcctgg	122460
gcaacatggc	aaaacccgcc	tttactaaaa	atacaaaaat	tagctgagcg	tgatggcgtg	122520
cgcctgttgt	cctagctact	taggggcctg	aggcagaagg	atcacctgag	ccttgggagg	122580
agggetge	agryagetgt	gatecactgt	actccaccct	gggcagggca	gragagtgag	122640
accougitete	caaaaaaaaa	aaaaacaaca	aaggtaattt	gttatttgta	tccttaagca	122700
aatyctaaag	gggtaacttg	gggatagaga	aaagtccaca	gatgttaggg	tttgaagaca	122760
tocatageat	transcrapt	ggtteetgaa	cattagtctg	rgggatattg	ergggergre	122820
acccctatas	toccaccigaga	ttacassast	aataggtttt	caggetggtt	geggeggete	122880 122940
tcaagaccac	cctcagcact	atootaaaa	gaggcaggcg cccgtctcta	gattacttga	ggccaggcgc	123000
caggcatgat	ggcacacacc	totaatoroa	gctactcagg	accetcacc	adyaactayc	123060
ctcgagcccg	agaggtagag	attacaataa	gcggagatca	taccactaca	ctccacacta	123120
	22-22-2242	22-43-34	J-JJ-gacca	Lycuactyca	aggg	_~

#### -131 of 185-

gctgacagag ggagactctg tctcagaaaa aaaaaaaaa ataggttttc agtctgggta 123180 ccggtggctc acacctgtaa tcccagcact ttgggaggcc aaggcaggca gatcacttga 123240 ggtcaggagt ttgagaactg cctggccaac atagtgaaac cttgtctcta ctagaaacta 123300 caaaaaatta actgggcatt ttgacgggtg cctataatcc cagctactag ggaggctgag 123360 gcaggagaat tgcttgaacc cgggaggcag aggactgcat ctcaaaaaaa aaaaaaaaa aaaggtttcc agtcccctg tctcagaaat tctgattctg caggtttgag gtgtgaccag 123420 123480 gaatetttat ttttagaaga cataccagat aattetgata aatagccagt ttagggatgt 123540 agtctaattt tcctattttg caagtaagga aaataaggcc cagagaggta atgatttct 123600 caaagtcaca gaacaagtta gtggcagaat ttggactgga atgcagttct taatgttctg 123660 tccagtgttt attctggtac agtatgtttg tagaaggtat tacgtaagaa acattgttat 123720 atagatgttg agataggaag agtttacatt tagaaatttg gtctaaaatg cctgaacatt caagtcgtgg aggagtattg accaacttac tcaatacaac ataggagatt cacattttgt 123780 123840 tacaaaaatg ctgatttaaa aggagagttt tetttttttt ettettttt attttttgag 123900 atggagtett getetgteac ecaggetaga gtgeagtgae acgateteag eteactgeaa ectecacete etgggtteaa geggttetee tgeeteagee teetgagtag etgggattae 123960 124020 aggtgggggc caccacgccc agctaatttt tgtattttta gtagagacag ggtttcacca 124080 tgttggccag gccggtcttg aactcctgac ctcaagtgat ccacccacca ctgcctccca aagtgctggg attataggcg tgagccactg tgcccagcct gcttgttttt gtatcatata 124140 124200 tatgcatcat cataatcatg cattatcaac ctttgtattt ctgtcaggac atagaaacca 124260 ttagagtgct tggaagagag ccttttttt tttctcgcat ttaatgcttt ttttggtatt catttcataa tcagcttacc aaaacattac ctgcattata ccccatcaag gtagaaatct 124320 124380 ttgtgttatc aatattggtt actocottto cacacogagt catcagtaag tootgttota 124440 124500 124560 aagttotoag otogottttt agggaaaatg accatgtott cotttootat aaattoottt 124620 ctatctatca agtcctcaac agagaatagg tacccataaa tatgtgattg ttagtttctt tgcctcagtt gtagtctgat ccttacagct tttaaacaac agtagagttc accgtcaaga 124680 124740 actaaggatg gttggcaggc agatagaaag gtagcaagtt gacccaacta tctctgggga agtgggaaca aagaaaggtt acatcagcac tgtcatcaca tagctctata gttctaggcc 124800 124860 tgcaggetca atcaagtage ettgtataag attetetgga ggaggtgetg aaagttgett 124920 atacttgcta tggaatttga ttttacttcg gatatctttt taccataggt acttctccct ccaagccaca catcctcttg gatttgatga tgttgtacga ttagaaattg aatccaatat 124980 125040 ctgcagggaa ggtgggccac tccccaactg tttcacaact ccattacqtc aqqcctqqac 125100 aaccatggag aaggtaaccc agaacttcaa acgtatcaaa ctacaagaag ttttattggt agaactcata aaatataagg tgggaaaacc aagcagaata gcacagtgga aattgaagca 125160 125220 gtccagcaaa gtgattaaga gcagaggcct tgagtctggc ctggtatgta cagtcacgtg 125280 ccacataaca ttttagtcaa cagtggactg cgtgtacgat ggtcctgtac gattataatg gatcaaagct ggtagtgcaa taataacaaa agttagaaaa aataaatttt aataagtaaa 125340 125400 aaagaaaaaa gaaaaactaa aaagataaaa gaataaccaa gaacaaaaca aaaaaaatta 125460 taatggaget gaaaaatete tgttgeetea tatttaetgt actataettt taateattat 125520 tttagagtgc tccttctact tactaagaaa acagttaact gtaaaacagc ttcagacagg 125580 teetteagga ggttteeaga aggaggeatt gttateaaag gagatgaegg eteeatgegt 125640 gttactgccc ctgaagacct tccagtggga caagatgtgg aggtgaaaga aagtgttatt gatgatcctg accetgtgta ggcttaggct aatgtgggtg tttgtcttag tttttaacaa 125700 125760 acaaatttaa aaagaaaaaa aaaattaaaa atagaaaaaa gcttataaaa taaggatata 125820 atgaaaatat ttttgtacag ctgtatatgt ttgtgtttta agctgttatg acaacagagt caaaaagcta aaaaaagtaa aacagttaaa aagttacagt aagctaattt attattaaag 125880 125940 aaaaaaattt taaataaatt tagtgtagcc taagtgtaca gtgtaagtct acagtagtgt 126000 acaataatgt gctaggcctt cacattcact taccactcac tcgctgactc acccagagca 126060 acttccagtc ttgcaagctc cattcatggt aagtgcccta tacagatgta ccatttttta 126120 tottttatac tgtattttta ctgtgccttt tctgtatttg tgtttaaata cacaaattct 126180 taccattgca atagtggcct acgatattca ttatagtaac atgtgataca ggtttgtagc 126240 ccaaaagcaa taggttgtac catatagcca aggggtgtag taggccatac catctaggtt 126300 tgtataagta cactetgtga tgttagcaca atggcaagca gcctaacgga aattetgttt 126360 attgattgat tgattgattg attgattgag acagagtttc actccattgt ccaggctgga 126420 gtgcagttgc acagtcttgg cacactgcaa cttctgcctc ccaggttcaa ccaattatcc 126480 tgcctcatcc tcccaagtag ctgggattac aggcaggcac caccatacct ggctaatttt tgtattttag tagagacagg gtttcaccat tttggccagg ctgttctcga actcctgacc ttaagtgatc tgcctgcttt ggcctccgaa agtgctggga ttacaggcat gagctaccat 126540 126600 126660 gcctgggcag taactgaaat tctctaatgc cattttcctt atctgtaaag tgacgataat 126720 atgcacgttt acctcaaagt tactttgatg attaaagtaa ggtaatgtat ataaaataca 126780 tattaacata gtacctgaca catggtaagc atcaaaaaat gttaactact tttattacta 126840 ttattattac gtatttttaa ataattagag agcagtatca aaaattagct gggcgtagtg 126900

#### -132 of 185-

gcatgcacct atagttccag ctactcagga ggctgaagct ggaggattgc atgagcctgg 126960 gaattaaagg ctgcagtgag ccgtgttcat gcccctgcac tccagccttg gtgacagagc aagaccctgt cttgaacaat taaagaaggc attatgccgc aacgttagct tagaaatgat 127020 127080 ccacatatat caccagtaac tgtcaacagg attggaaccc tagttttggg tattatgatc 127140 acaaggtatt attaatagct tattaataat aaagcgttgg ctaggcacgg cgactcacat 127200 ctgtaatccc agcactttgg gaggccgagg tgggtggatc acctgaggtc aggagtttga .127260 gaccagootg accaacatgg agaaaccoca tototactaa aaatacaaaa ttagooggo 127320 gtggtggtgc atgcctgtaa tcccagctac ttaggaggct gaggcaggaa aatctcttga 127380 accegggagg cagaggttge agtgagetga gategeacea ttgeacteea geetgggeaa 127440 caagagcaaa actccgtctc aaaaatataa ttataataaa taaataaaag taaagtattg 127500 atgtttgtga atgatttatt cttctaatga actagaggag atttttccag gaatttcaga gccagtgagg ttatgttgct tgtatgtgtc atgtgtatcc aggtgaaaaa acttaattaa 127560 127620 acgctattat ataataccat acataaaaac tgaattttag gaatactgaa gaatgacata 127680 tagaagtcaa atcattaaat agctagtagt aaacagaata gagtgtcagc tgttacccaa 127740 tgatgataat attttcacga ttaaaattaa accttttctg attttaaagg aaaagttcag 127800 atctgtatca tataaagaat gtaaattttc agggtaataa aattaaaatg cagagagaaa 127860 aatgcaaaaa tagttcttac tagatgtgtg tatgtaagga acttagacta attttaagaa cactgtcaag accctggtag ttaggtagga aaaaagacat gaatgattca ttcaacaaaa 127920 127980 actttgagta tttctgtgct agatggtagt gttacagtgg taaacaaaat aaatgtgttt 128040 ctgctatcct ggagcttagt ctacaaaaaa ggtacatatt ggccgggcac ggtggctcac gcctgtaatc ctagcacttt ggaagatcga ggcgggtgga tcacctgagg tcaggagttc aagaccagct tggccaacat ggcgaaaccc cgtctctact aaaaatacaa aaattaactg 128100 128160 128220 ggtgtggtgg cggacacctg taatcccagc tactcgggag gctgaggcag gagaatcact tgaacctggg agacagaggt tccagtgagt cgagatcatg ccactgcatt ccagcccggg 128280 128340 ggacaaaagc gaaaatacgt ctcaaaaaaa caaaaacaaa caacaaaggc acgtattaaa 128400 tacgaacata aatatttaca aattatactg aataagttet catgtttatt atttgettgt 128460 ccagttacaa acttttcctt cgtagaatta gaaatataaa taataaacat gagaactcat 128520 tcagtataat taataattat taaatgtaaa taaaaacatc tatgtacaat taggcattta 128580 tttaagaatt atttgaaaaa aaaacaatgt ggaaacagat attttgatat attgctagtg 128640 attgaaattg ataatgttct tttgaagagt aaagtgacca tatatattaa agttaaaatt 128700 taactcagca atcacacgcc tggtgagtta tcttaaggaa atcagtttga aagtaaaatc 128760 aatatatgca caaagacttt aacatttatc ataaaccaga aaaatcgagt ttcaaattat 128820 atcctatgga ctattttctg ctaaaaagta ttaatatcaa ctttatgtaa tactttcgtg 128880 acaaatattt tgggggagaa aacccaacaa aattacatgc attgtaattt tttttttt 128940 ttttttttta gacagtettg etceagegte caggetggag tgeagtggtg caatetegge 129000 teactgeaac etecatetee cagetteaag caatteteet geeteaggee teecgagtag etgggattae aggegeteac caecatgeet agetaattet tatagtetet agtagagatg gggttecate atgttggeea ggetggtett gaacteetgg teteaagtga teegtetgee 129060 129120 129180 teggeeteet agagtgetga gattaeaggt gtaageeact geacceagee ttatgeatta 129240 taattttaat ttgtaaactg tacaaaggga taatacttgt agtacaacaa gaagtaaaaa 129300 catttgttat aggtagttaa catttgtaac cagtagaatt ataggtaaaa tttatttatt 129360 taaaacagtt tragtregat tregatiteaa ettraaaata argetterea teretateag 129420 gtctttttgc ctggcttttt gtccagcaat ctttattata aatatttgaa tgatctcatc 129480 catteggtte gaggagatga atttetggge gggaaegtgt egetgaetge teetggetet 129540 gttggccctc ctgatgagtc tcacccaggg agttctgaca gctctgcgtc tcaggtattg 129600 actgattgcg tctgccatta gggagaaaag catacacatc ctttccttca catcccagta 129660 acagateeta ttatttgtaa attttaagtt gtggaaaaaa aagataaaag ccaggcacag 129720 tggcctgtgc ctgtaatccc agcactttgg gaggctgcgg tgggcggatc acacgaggtc 129780 aggaattega gaccageetg geegacatgg tgaaaceeca tetetactaa aaatacaaaa 129840 attageeggg catggtggea ggeacetgta atcetageta ettgggagge tgaggeagga 129900 129960 130020 tagectaett actatettet aateaaagea tttgtggtaa ettaaaatat actgtattgt 130080 aaagtatcat getgttteat ttaggeeatt attetatttg aatetgtgge tgtttetett 130140 aataaatcaa gtaatatgga atatattcat agcctctgaa gagctcttta tgtaagtatt 130200 tatttaggat actttttgta aaataagtga atgaattett aggteteett tittttett 130260 ttottgagac agggtotoct ogotgoaaco tggaaattot gggotoaaat aatocacoca coacagooto otgaatagot gggaotagag goatgoacoa coacgootgg otaatttgaa 130320 130380 attttttttt ggccaggcat gatggttcac gcctgtaatc ccagcacttt gggagaccga 130440 ggcaggcaga tcacgaggtc gggagatgga gaccagcctg gccaacgtgg tgaaaccccg tctctactaa aaatacaaaa attagctggt tatggtggct catgcctgta atcccagcta 130500 130560 cttgggaggc tgaggcagga gaatggcttc aaccagggag tcggaggttg cagtgagccg 130620 agalcacgcc actgcactcc tgcatggtga cagagtgaga ctccatctca aaaaaaattt 130680

### -133 of 185-

tttttttaaa tgatggagte ttgctgtgtt getcaggetg gtettgaace cetgacetea aatgeegeet gettcageet aagtttettt tttttttgta aagagacagg gtettgetat 130740 130800 gttggccagg gtagtctcaa actcctggct tcaagcagtc ctcccacctt ggcctctcaa 130860 agtgctggga ttacaggcgt gaaccactac ctataatgtt gtgtttcact caaggccttt 130920 tgatttcgtt ttgcattacc gtgccacatt gtgcatttcc ttgacctttt ttgggttttt tggagtgctt tcatatgtta aaccatacct gattctcctc aaaatcacac aaagtagaat 130980 131040 atcctaagac aagaaatcta aggaggcata aagaagttaa ctggttttat taaactcaca 131100 cagtaaatga tagagccaga aatattcccc ttctagtgtt cttcaccatc agcttaatgt 131160 agcataataa ttttctaatt actgttgaca aataaataac cctttgaatt ttcaatactg 131220 ggccttggat aaattttcct aatttgtaag agagtattat cgtattgcca tttacaaagc 131280 tctcctgagt atcttttct tctgttaagt ttacctagga gataaactgc tgagtatggt tgccattttg gttttttgat ataggttaga atgtcttggt ttttttttt tttttttg 131340 131400 gitttttgttg itgtcatigt ttgagacagc atcittgctct gtcgcccagg ctggagtgca atggcacgat cgtggctcac tgcaacctcc acctcccggg ttcaagcaat tctcctgcct 131460 131520 cagetteetg agtagetggg attacaggea tgtgcaacca cacetggeta atttttgtgt 131580 ttttagtaga gaaggggttt caccatgttg gtcaggctgg tattgaactg ctgacctcat gatccacctg cctcggcctc ccaaagtgct gggattgcag gcatgagcca ctgcacctgg ctgaatgtct tgtttttgat taggcactta agaaaggcct aggtactaac cataaaatat 131640 131700 131760 attittatac cittigitga tactatatat atagaaaact gcacttatca taaccttaga 131820 caccttgaag aatgttcaca agcagaacta acccatgtga cccagcatcc agatcaaaaa 131880 cagcattate ageceeteta gaageeetet tgggeeeett ceatteactg teettettgt 131940 caccagggta gctactatcc tgacttttga tggcatagat tagcattacc tgttcttgtc 132000 attttataaa taaaaccata ctgtgtattc ttttcttgta cagctttatt gtgctaattc 132060 acatttacat catacaattc agtggttttt atatggtcac agagttaggt aaccattacc 132120 acategattt tagaacattt ttttcactcc agatagaaac cccctttact taaactccaa atcccccact ccaccagccc taggcagcca ctagtctact ttttatctct atagagacaa 132180 132240 tagatttgct tattctggac atttcataaa catggaaccg tatattatgt ggtcttttgt 132300 tgccaactgt ctttcactta gcatcatgtg ttcaaaagag catcatgtta tccatgtttg gcatgtatca gaattttatt cctcattatg gccaaatatc ccattgcaag gatttatgac 132360 132420 attitatitg aattgtaccc tectitetge catttateaa taatgetact gtgaccattt 132480 gtgtacaagt ttttgtgtgg atacaggttt tctttttgtt tttaaatttg aggtggagtc 132540 ttgctctgtc gcccaggctg gagtgcagtg gcacaatctc ggctcactgc aacctctgtc 132600 teetgggtte aageagttet eetgeeteag eeteeegagt atetgggaet ataggeaege accaecacge ceagetaatt ttttagtaga gatggggttt caccatgttg gecagtetgg 132660 132720 · tetegaacte ttgaceteaa gtgatecace cateteggee teecaaagtg etgggattae 132780 aggggtgage cactatgece ggetgtggtt tteatttett ttgttgtata tacataggag tagaattget gagteaagag gtaactetta aacttattga aaaactgeca gattgtttte 132840 132900 cgaaaagget geaceatitt geaateecae cageagtgia tgagttitae agetieteea 132960 catttcattg gaacttatta tetgtttggc tgtttttaaa aatgatagtc attccaataa gttctacttc agtgtggttt ttgcacttct etgatgagta atgatgttga gcatettttc 133020 133080 atttgcttat tggcctttgt tctagctttg gaaaaatgtt tattcaaatc ctttggccat ttttatttt attttattt atttatttt ttttgagacc aagtctcact ctgtcagcca ggctggagta caatggtgtg gtctcagctc actgcaacct ccgcctctg tgttcaagtg 133140 133200 133260 atteteetge eteageetee egagtagetg ggattacatt teaggeacet geeageatge egggetgatt titgtatitt tactagtgae agggttteae eatgttagee aggetggtea eaaacteetg aceteaggtg atetgeetge etaggettee eaaagtgetg ggattacagg 133320 133380 133440 cgtgagccat tgggcccagc ctagattttc ttttttcttt tttttttga gaaggagtct 133500 tgctcttgtt gcccaggctg gagtgcaatg gcacaatctt ggctcactgc aacctctgcc tcctgggttc aagcgatttt cctgcctcag cctcccagt agctgggatt acaggtgcct accaccaca ccagctaact tttgtatttt ttttagagac agggtttcac catgttggcc 133560 133620 133680 aggetggtet caacteetga ceteaggtga tecacetgee ttggeeteec gaagtgetgg gattacegge atgagetace aggeecagee aattttetea ttatattgee caggetggte 133740 133800 tcaaactcct gggttcaagt gatcctcctg ccttggcctc ccaaagtgtg gggagtacag gcgtgagcca ccttgctcag ccctttgcc catttttaaa ttagattgcc tttttatatt 133860 133920 gagtttcagg agtcctttat atattctaga taaatgtccc ttatcaaatt atattatttc 133980 134040 134100 gcagtggcac aatcacaget caetgecace teaactteet gggccgaagt gatectetta 134160 cttcagcctc ctgaatagct agggccatag atacacacta tcacacccag ctttttttt ctgtttgtag agacagatct tactgtgttg cccaagttgg tctcaaactc taggctcaaa 134220 134280 gtgattetee caectetgee teccagagtg etgggattae aggtgtgage caeacgeaac 134340 ctgtcttttc actattaata gtgtcttcct gcttcagcct cccgagtagc tgggattaca ggcacccacc accatgcctg gctaattttt ttgcattttt agtagagaca gtgtttcacc 134400 134460

### -134 of 185-

atgttcaccc ggctggtctt gaactcctga cctcaggtga ttcacctgcc atggcctccc 134520 aaagtgetgg gattacagge gtgagecaet geaeeeggee aaaatattge ettettaaea 134580 gtattgtett etaatttgtg aacatggatg tatetteatg tatttatgtg ttettteatt 134640 tcagcagaat tttgtagttt tcagagtaga agcetttcae etecttgggt catttattee 134700 tatgttttaa gttcttttcg attccattat aaatagaatt gttttcttaa tttcattttc 134760 agattgtttg atgagagagc atagaaatac aagtgatttt tacatqttga tcttqcaact 134820 tcaactttga taaatctgat tgttagctct aatagttttc ttgtggattc tttaggattt 134880 tcaatatata agatcatgtc atttatggat agagatagtt tttttctgg ctagaactta 134940 cagagcaatg atgagtagaa gtggcagaag caaaaatctt tgtcttgttt cctatctgac 135000 agggaaagct ttcagtttca tcatttaata tgatgttagg tgtgggtttt caataaatgc cttttttcag attcaggaat ttccctatca ttcctgattt tttaaggctt ttttttttt 135060 135120 ttaaatcatg aaagggtgtt gaatattgtc atgttctttc tgtatcagta taaatgatcc 135180 tatggatttt gggttttatt ctgttgatgt gaaatattaa ttgattttca gatgttaaac caacettgca tacctgagat gaatctcact tggtcatggt gtataatctt ttcaatatgc 135240 135300 tgctggattc catttactgg tattttgttg aagattttgt atctgaacgc ttaagataac 135360 atttacactc tatcagaaat gaattgacca taaatgtgag agtgtatttg tgggttcttg attctctcc attccaaaga tagacataca tccgtctgta tgtctgtctt tatgccagta 135420 135480 ccatactctc ttgattacta ttgctttgta ataagttttg aaatcagaaa gtataaatga 135540 gattttggta totgagtaac agtcotcata gaattagttg ggaaatattc cototttatt otggtocotc tttottttt gtttaactgt gtatottgga gattgttoct totcaacaca 135600 135660 tgagageege ttteectace etcecaceee tgetatagag aggtetataa gtgtetgtte 135720 aattattta tttacttaac ctattactta gteggggaca ttaagettgt ttatgtett tatttaaac aatgetgeag tgaataatet tgtatataag teatttteea teaatataag 135780 135840 tetetetgta aetgaatttt tagaagtgga atttetaggt caacetatgg etetgtattt 135900 cacaaaaata ccaattctgg tttttcttgt ggaggtgggg agtaggaggt agaatgctgg aggagaactt gctgtactca gctggctagt cattttagaa aggtttcctt agcttcttt 135960 136020 tgtcatatgg cctcaccaag aatcaaaaac attcctattt accctgtaaa catggggctt tactacccaa gatacatatt tctggatgta tgacagcttt tcatattgaa gaaataatgc 136080 136140 tgtgagtaca gcacatttgt tggaacttag gtcgttaaga atgtcttata aattcataca ttatacattt tattttatt tattttag tttttgatac agagtcttcc tctgtcgccc aggccagcgt gcagtggtac aatcttggct cactgcgacc tccatctcct gggctcaagt 136200 136260 136320 gatteteatg teteageete cagagtaget atggttacag geatgeacea ecatgeeegg etaattetet tattetagt agaaactggg teteaceata tegaceatge tegeetegaa eteteggeet caagtgateg geetgeetea geeteeeaaa gegetgggat eetetgtateg 136380 136440 136500 136560 ggtaaaagat gaatattgag ggctgcatgg tggctcatac ctgtaatccc agcactttct gagactgagg tgggaggagt cctggagccc aggagggtga ggctgcagtg agttgtgatc gcgccattgc acttcaacct aggaattata ggcttcagtc actgtgcccg gcatgtacat 136620 136680 tttaatattg tgctttcctc ttttagctat agtatgaggt tacatttcag agtcattgtt 136740 gttaagcatc ttaatagtga tgaggttgag tgaaagttac ttctatttca aacactgaag 136800 aaaattttgt acaaatctgt cacattccaa gcccaggact gattgtttca tatacttcta 136860 attttacaat ttctattgta gtccagtgtg aaaaaagcca gtattaaaat actgaaaaat 136920 tttgatgaag cgataattgt ggatgcggca agtctggatc cagaatcttt atatcaacgg 136980 acatatgccg ggtaagctta gctcatgcct agaattttta caagtgtaaa taactttgca tcttttaaat tttttaatta aattttacat ttttttctaa tctattatta tatgcccaga 137040 137100 actttcactt agagtgtgca gtataatgtg gtggttaagt ataaaggctc tggagtgact tcctgggttt taatcttggc tctgccattt attggcagcc gctaacctct tggtatctca 137160 137220 gtttcttcat ctgtaaaatg agaataataa agtgaaaaga tgccaacatc atttactctg ggctgcataa ctgatacttg gaaaaagtat tcctttgagt ttaagaatta agttggttat 137280 137340 tcattttagc ttgtaataaa aagatagtga ttcataggat atgccactta ctgaaattta 137400 ccacagatcc aatcataaaa tcactttctc ttccctaaag atagcttgat taacatgtaa aggtgtgtaa aggcttgatt acactaccct gatccgtacc ccagttccca gcagcaccat 137460 137520 gaaaaaggga tttcaacata tttaattact ttcagtagaa agtaacagtg gtaggccagg 137580 cgcagtggct cacacctgta atcccagcac tttgggaggc cgaggtgggc ggatcacgag 137640 gtcaggagat tgagaccatc ctggctaaca cgatgaaacc ccgtctctac taaaaataca 137700 aaaaattagc cgggcatggt ggcaggcacc tgtagtccca gctacttggg aggctgagac 137760 aggagaatgg cgtgagcccg ggaggcggag cttgcagtga gcttagattg tgccactgca ctccagcctg cgcagtggag cgagactctt gtctcaaaaa aaaagaaagt aacagtggta 137820 137880 ttgggagact gaggagccta gaaagtactt gaaggaagta aaaggtttgt ttgaccacat 137940 tgtatttgga aagccagctt tttcagctgt gtcagctttg tgtagtgatt tttagttett cttttagaaa ataacggaca aggccgggca cggtggctca cgcctgtaat cccaccactt 138000 138060 tgggaggccg agacgggcgg attacctgat ctcaggagtt cgagaccagc ctgggcaaca tggtgaaacc ccgtctctac taaaatacaa aaagttagcc gggcgtggtg gcgtgtgcct gtagtcccag ctactccgga ggctgaggca ggagaattgc ttgaacccgg gaggcggagg 138120 138180 138240

### -135 of 185-

ttgcagtgag	ccaagatcac	accattgcac	: tgcagcctgc	gcgacagagt	aagactctgt	138300
ctcaaaaaat	aataataaaa	taaaaaagaa	. tggacagtaa	acctaaatga	gttcattccc	138360
aaagatgatg	ttattcttaa	. gggatggttc	atttatttaa	gaccttacat	aaagtctatc	138420
aattgcgtga	tttttcactt	ctgtaattgt	gtgtatgtat	aatgtaaata	tatatgtttt	138480
tgttttgttt	tggtttttg	agacggagtc	tcgctctgtt	gctcaggctg	gaatgcagtg	138540
gtgcaatctc	agctctctgc	aacctctgtc	tcccaggttc	aagcgtttct	tctgcctcat	138600
cctcccaagt	agctgggact	acaggcacgt	gccaccacgc	ccggctaatt	ttttgtattt	138660
	tggggtttca					138720
tccacccgcc	ttggcttccc	aaagtgttgc	tattacaggc	atgagccacc	acacccaqca	138780
tgtattttt	aaatgtataa	aatgaagcag	aaaagagaaa	tgataatttt	tcttcatctt	138840
gaaagattat	cttcaccagg	cgcagtggct	cacacttqta	atcccagcac	tttgggaggc	138900
ctcggcaggc	ggctcacttg	agttcgaaac	cagcctggcc	gacatggtga	aactccgtct	138960
ctactaaaaa	taaataaata	aagatggttt	taatatatqt	tttagtttta	tgattttagc	139020
atctttctga	aatttttctc	aaggcaagta	aatttgtatc	agttggtata	ttggtaccca	139080
tctatgaaat	aacttattag	gaagatatct	ctaaaataaq	atcactttqc	ctaaaataaa	139140
ctgatatatt	gatgttcaca	gaatttttct	tttaaccgac	ttgataaatg	cattattctt	139200
gacgtcaagt	gatccacctt	cctcagcctc	ccaaagtgct	gggattacac	acatgageca	139260
	cattattctt					139320
	cattgcttat					139380
	ttgcttattt					139440
ttcattcaca	gtgagttttg	gacattccta	tottcatcta	tacagactta	cttcatttta	139500
actacactgt	agtattccgt	atgtaatatt	tactataact	catcactota	gcagagcatc	139560
tcatagtgta	tgtattactg	ttttgccatt	ttggtatcaa	tgagtattta	agtcatttgc	139620
agtttttccc	tcttataccc	agtattacag	aggatetett	tttatatqct	tctttgtacc	139680
aagaggcaga	ttaaaaaatt	tttttttgaa	aaaatttttg	aaaaaaaatq	aaatgaagtc	139740
tcactatgtt	gcccaggctg	gtctcaaact	cctaggctca	agcaatcctt	ccatcttqqc	139800
ctcccaaagt	gctggggtta	caggcatgag	ccaccatgcc	tggcctacat	tttaaatttt	139860
gatagctctt	acaatttact	ttgtaaagta	tctgcatcat	tttatgttct	caccagtett	139920
taataagaat	acttcatact	tttggctgga	cacagtggct	cacqcctqta	atcccagcac	139980
tttgggaggc	cgaggcgggc	agatcaagag	atcgagacca	ccctggccaa	tatggtgaaa	140040
ccctgtctct	actaaaaata	caaaaattag	ctgggcgtgg	tggcgcaccc	gtagtcccag	140100
ctactcgaga	ggctgagaca	ggagaatcac	ttgaacccgg	gaggtggagg	ttgcagtgaa	140160
cttagatcac	accactgcac	tccagcctag	caacagagtg	agactctgtc	tcaaaaaaaa	140220
aaaagaatac	ttcagactta	atttttttc	cagtcttaag	tgtttgctaa	tgagattgag	140280
tttcttttgg	tatgtctctt	gattgttcag	gttttttctt	ttatgaattg	actgttcatc	140340
tctttttcac	attatttctg	ttgggtgatt	ttattagtga	cttgttaaaa	ttctgtatat	140400
tttttcagca	tgacacttca	ttattcaaaa	aaaaaaaag	attctctatg	tttctcgata	140460
ctaatcattg	gttggtaata	ccttaaaaat	aagaccctta	ctgtattttt	tgctttttt	140520
tttttttt	tttttttt	tttgagatag	agtcttgctc	tgttgcccag	gctggagtgc	140580
aatggtatga	tctcggctct	cagctcactg	caactgcaac	ctctacctcc	ctgtttcaag	140640
caattctcct	gccttagcct	cccaagtagc	tgggattaca	ggcatccacc	accacaccca	140700
gctaattttt	gtatttttag	tagagacagg	gtttcaccat	gttggccagg	ctggtctcaa	140760
actactggcc	tcaagtgatc	cgcctgcctc	ggcàtcccaa	agtactggga	ttacaggcat	140820
	gcctagccac					.140880
gtataaacag	atgtatgtat	acacacaact	atggctttat	aatatgtttc	agtcattgtt	140940
	ctaccttttg					141000
	tttgtgaatt					141060
aactgaggat	tttgaatgga	attgcactca	attaaagatt	atcttgcttt	ctgtgcagca	141120
atgttttatt	tcaaataatc	cctactttaa	attacttagg	atagctataa	attgtgtttc	141180
tggctttcta	gatttagatg	aaacgcttta	aattgattgt	tttctcctaa	atttaaaact	141240
gattgttaga	agttaaagtc	ttctgttcat	tcttatttag	gaagatgaca	tttggaagag	141300
tcagtgactt	ggggcaattc	atccgagaat	ctgagcctga	acctgatgta	aggaaatcaa	141360
aaggtttgtg	gtgtttttat	acttcatatt	aagcctttac	tcacattagt	gattgactgt	141420
aagtcaaaga	ccacttaagg	tttaaactgt	ttattttgta	aagtaaccac	tgtatctttc	141480
accttgtgtt	tatagtcaga	agtaagtaca	agggcttcct	gtagtcacat	ctttatgcaa	141540
tctcctctga	atcaaaagtt	agtgaacttg	ctttgccact	ccagaaggca	catgaatatg	141600
aaaaagcatt	gtctattttc	ttatttaatg	gcaaaatacc	cgacctaaqt	tggacttaat	141660
gtttgagacc	gtttatttta	ttaaattata	ttttttctct	tttcttttt	ttttttgaga	141720
	tctgtcaccc					141780
retgetteet	aggttcaagc	gattttcctg	cctcatcctc	ctgagtagct	gggactacaa	141840
grgcgcacca	ccacacctgg	ctaatttttg	tatttttagc	agagatgagg	tttcaccacg	141900
rrggctaggc	tggtctcata	ctcctgacct	caagcaatcc	atccgccttg	gcttcccaaa	141960
yegetgggat	tacaagtgtg	agccaccatg	cctggcctta	ttaaattatt	tttattaaat	142020

# -136 of 185-

ttcctcaaga	ttgatgaaag	taatgaaata	taaaagtaat	gaaatatatg	tggaaaatag	142080
actggattaa	gaaaatgtgg	cacatataca	ccatggatac	tatgcagcca	taaaaaagga	142140
tgagttcatg	tcctttgtag	ggacatggat	gaagctggaa	accatcattc	tgagcaaact	142200
gtctcaagga	tagaaaacca	aacaccgcat	gctctcactc	ataggtggga	attgaacaat	142260
	ggacacaggg					142320
gctgggggag	gaatagcatt	aggagatata	cctaatataa	atgacgagtt	aatgggtgca	142380
gcacaccaac	atggtacatg	tatacatatg	taacaaagct	gcacgttgtg	cacatgtacc	142440
ctagaactta	aagtataata	aatttaaaaa	aaataaatat	atgtggaaaa	tattaatagg	142500
tcaaaattca	aattgttcat	ttaatcagaa	gagtagttta	gtcaaatcca	agggttagac	142560
aacagaaatc	ttttttgtca	agtgcattct	ttgtgactga	tttcattttc	ttcctggttt	142620
acacaggaag	atttcagaaa	caaatgtgga	tccgtgacag	atggtatcta	gaagttttta	142680
gtttggttga	attgacagta	ttttattgag	taaaagatac	taatttttgt	aagaagaaaa	142740
attcaatttt	gataagtatg	tttaagatta	agagctattg	gccaggcgct	gtggctcatg	142800
cctgtaatcc	tagcactttg	ggaagctgga	gcaggtgggt	cacgaggtca	agagattgag	142860
	ccaacatggt					142920
	acccgcctcc					142980
	gcgccatggc					143040
tggccaggct	ggtctggtct	caaactcctg	acctcaggtg	atctgcccgc	cttagcctcc	143100
	ggattacagg					143160
	ttttgtttga	gacggagtct	tgctgtgtcg	cccagagetg	gagtgcaatg	143220
grgcgarere	ageteactge	aacctctgcc	teetgggtte	aagcaattct	cctgcctcag	143280
tetteeaagt	agctgggatt	acaggegegt	gccaccacat	ctagctaatt	tttgtattt	143340
tagtagagac	agggtttcac	catguiggee	aggetggtet	cggaactcct	gacctcgtaa	143400
tetgeedate	teggeeteee	aaaguguuga	gattacaagt	grgageeaer	grgeecagee	143460
caggettage	ctttctttt	ctctgccggg	cgggaggggg	acagagteta	getetgtege	143520
	tcactgcaac					143580 143640
actacacato	tgggattata gggttttgct	atattasca	tactacacta	aactaataa	cccaccttcc	143700
cctcccaaag	tactgggctt	acgregatea	acttatetta	adjugaturg	castattoog	143760
gactacatag	tggttcatac	ctgtaatctg	aggactttgt	ggcaaaagaa	tagaaggagt	143820
	aggagggtga					143880
	aatggagcaa					143940
	gaggtcagtg					144000
	aggaagaact					144060
	cccagtatta					144120
	tcctgagatg					144180
	actgcaagct					144240
caagtagctg	ggactacagg	tgtccaccac	cacgcccagc	taattttttq	ttatttttag	144300
tagagatggg	gtttcaccat	gtcagccagg	atggtctcga	tctcctgacc	togtgatccg	144360
ctcgcctctg	ccttgcaaag	tgctggagtt	acaggcgtga	gccaccgtgc	ctggcctggt	144420
ttttttgttg	ttgttattta	tttatttatt	tatttattt	ttgagacaga	ctctcgctct	144480
gtcgcccggg	ctggagtgta	gtggcacgat	gtcggctcac	tgcaagctct	gcctgccagg	144540
ttcaagccat	tctcctgcct	cagcctcctg	agtagcaggg	accacaggcg	ctcgccacca	144600
cgcccggcta	attttttgta	tttttagaag	agacggggtt	tcaccgcatt	agccaggatg	144660
gtctcgatct	cctgatgtcg	tgatccgccc	acctcggcct	cccaaagtgc	tgggattaca	144720
	accgtgcctg					144780
gacagctcat	gaagaagtgc	tcctgcttca	tatgtatatg	tgttagcata	gtgttaacat	144840
agcataggtg	ttcggtgttt	gcagtttctg	tttgttttat	atgaattaag	gtgtattatg	144900
agcagttgaa	gatatatagg	aaatttttc	ccaaaccact	atctctgctc	gttctattca	144960
ttcagtctgt	ttatgttatt	ccttcattca	ttcattttat	agaacagtgg	agtgcctact	145020
gtatgcatct	attgttctgg	gtcctgggga	agaaaacaaa	gttcctgctt	tcatggaact	145080
tacattatat	tggcggagac	agtaacagac	aaacaaatgt	agcctgtgta	catgtgttac	145140
atgaaaagca	gggtaggggg	ctgggagaga	gtagtaggga	gtgctatttt	cgaggtggtt	145200
gccaggaaag	gcctcactga	ggaggtggca	ttttgagtag	acctgagcgc	agcgggggcg	145260
caageceagg	cagcatgtgg	aggaagagtg	nangana	aaggaacaag	gatagaggcc	145320
cyaayctaya	gageteagea	cyaccaagga	acagcaagcc	ccgtgtggct	ggaatggagt	145380
yaycaaayya ggaattaaaa	atgagcagta	gaayytgagt	gagergggag	gccaccagag	accatggcaa	145440 145500
tttatttta	gtgtcaggga	actatttt	account act	gyadatgatg	tttage	145560
ttagtgtagg	ttttatgttt gcttcaagaa	agagaacea	daaacaaca+	tottoogeta	atastsatat	145560
aaataaaaaa	tgatggtggt	ataattea	ctaataataa	aagaggagta	garagara	145680
tatatttaaa	ggtagaggca	aaaagattat	atttctacca	dcaadccayte	ctatosaott	145740
acttotatta	ttaatttaat	tgagacatgc	ccacataaac	taataaataa	gaatttetee	145800
	uucccaac	-Jugueatye	ccacacaac	cuacaaacay	gaaccccgc	

### -137 of 185-

agtttggtta	aacacccctg	tatatcctgg	ttcttcttt	agttgtccag	atgtctcttt	145860
aagtcaagta	ttttttggtg	gtgtaggagc	ctagagattg	aatttattca	cccaaaaggc	145920
		ccaggcacta				145980
cgtagtctca	gtctgtttta	ctccagcttg	gttccttttt	aatgaccctg	acttgttaag	146040
catatcagtt	atcctacaga	atgtttaatc	ttctgtactt	tcctggttgt	gttatttagc	146100
ttatttctct	ttccttgaca	tttcttgtaa	actggaagtt	acacctatag	tcttgatgat	146160
tcgtgttaca	cattttagat	tagaacacat	catgtgttgt	atatggtgtt	tttgaaagcc	146220
tctctgtata	ttggtctgta	cattaaaatg	ttgcctgaat	ggatacacat	aaaatttaac	146280
agtgattaca	ttagagatga	gaagaaagag	gtgcctttta	cttttcaata	taccttttcc	146340
tctgcttttt	gaactttctt	gccctatgca	tacgttattg	cttaatcatc	cacctcatct	146400
		tgcatttgga				146460
		tatcacctta				146520
ctcattggac	tatcttttat	tcttttgctg	aagtttcttc	actttgagtg	cctctgcagt	146580
		aagccctgcc				146640
ctcatctcaa	tattatctct	tcagagaggg	accttcccaa	ctccgatgat	ctaaaatcct	146700
ttgtatatac	cactcactac	cacttctttc	ttttctttc	cttttatctt	tttttttt	146760
tttttttt	gagatagggt	cttgctctgt	tgcccaggct	ggaatcacga	ctcactgcag	146820
cctcatcttc	ttgggctcaa	atgatectet	cacctcagcc	tctcgagtag	ctggaactgc	146880
aggcacacac	caccatactt	ggcttattat	tttactttt	gtagagacag	ggtttcacca	146940
		ccgcaagcaa				147000
gattatagga	gtgagccact	actcctggcc	tattttctta	ttcactgtct	aaaattatct	147060
		tgtttatagc				147120
cctgtaatct	caatactttg	ggaggctggg	ttggagaatt	ggttgagccc	aggacttcaa	147180
gaccagcctg	ggcaacaaag	tgagaccctg	tctataaaaa	attgtttaaa	aattagctgg	147240
gcatggtggc	acatgcctgt	ggtcccagct	acttgggagg	cagaggtggg	agaatcgctt	147300
gggcccagga	ggttgaggcg	acggtgagcc	atgattgtgc	cactgcactc	tagcctagtg	147360
acagagtgag	accatgtgtc	taaaaagtaa	ataaaaatag	tttctctttc	atgactagaa	147420
tattacctct	atgtgggcag	ggagtttgtc	tatactattt	ggcactatat	ttcctgattc	147480
tgaaattatg	cctagcacat	ggtaagtact	ccttaaatat	ttattgactg	aattattaa	147540
tacttaagaa	tttcatttgg	gattatctga	gtggtaagat	tacggattat	atttatgtaa	147600
gaaaaaatca	ttttttaaac	ttggttgccc	tttgccacac	tgacatagac	actaagtttt	147660
cttagecaga	ctacttccga	ggatactcac	agaggccatt	ctcttctcaa	tccccaata	147720
accgacaccc	ttatageaett	tcaagctaat	gcaattetta	gatgatgtat	ctgtgtatat	147780
tatacacaca	ttagaagaa	gragaaarrg	aagtetggge	acageggeee	tcacctgtaa	147840
tagagagagat	ccgggaggcc	aaggcgagcg	gaccaccgag	gacaagagtt	aagaccagcc	147900
agetasaga	tataataaa	tgcctctatt	addadacacaa	caattaggge	egggegege	147960
agttcgagag	cataateeca	gcacgttggg aacacagtga	aggeeaagge	aggeagacea	cgaggicagg	148020
taggegagag	tactcaggee	aacacagega	aaccccatct	ccaccaaaaa	cacaaaaaa	148080
tagecaggea	cagaggaacg	cgcttgtagt gaggttgcaa	tanastanas	gggaggetga	ggcaggcgaa	148140
ctcctcgaac	ccgggaggcg	ctgtctcaaa	cgagetgaga	Ligeaceget	gaaccccage	148200
actacacact	accactacct	gtaatcccag	ctactacca	aadaacaacc	agecaggege	148260 148320
++===ccc=c	gagtactt	ttgcagcggg	ctactaggga	ggctgaggga	tagagaaccac	148320
ccaacacact	gaggaggagaga	cttaaaaaaa	22222222	accaccacac	tarageetgg	148440
gaagattata	gtctgtgatt	tgttaggaat	cacacacacac	attactacca	egaggaacgc	148500
tttggttcag	aataccacct	tgacaatggt	ttatttacaa	ttcaactccc	cttcctctcc	148560
ctttctctcc	ttccttattq	agggcagctg	gaaagaattt	tcatcattta	ctagcctata	148620
		accttgataa				148680
ttttttgaga	cagtetteet	ctatggccca	gactagaata	cagtgacacc	atctcagctg	148740
gttgcaacct	ctgcctccca	ggttcaagca	attetgeete	agegacace	gtagctgaga	148800
ttacaggcac	gtgtcaccac	gcccagctaa	ttttctattt	ttatttatt	ttatttttt	148860
ctgagatgga	gtettgetet	gtcacccagg	ctggagtgga	ataatacast	attaactcac	148920
tcaaacctct	atetectaga	ttcaagcaat	tettetacet	cacctccc	agtaggtagg	148980
actacaggta	cataccacca	tecetagtte	atttttgtat	atttaataa	gatagaattt	149040
cactatotto	accaggetgg	tctcgaactc	ctgatctcag	gtcagtaga	catctcaatt	149100
teccaaagtg	ctaggattat	tggcacacgc	ctatttttt	atttttagta	gagacggggt	149160
ttcaccator	tagttagact	ggtctcaaac	ttetgaeete	aagtgatttg	2-2-23333	149220
cctcccaaa	tactacaatt	acaggcgtga	gccaccatac	ccaccasca	ttgagttttg	149280
aaaagagcct	tctgagatta	tgagaagggc	aagcaagata	acttaagaag	ttacattaaa	149340
atcatctaac	agacagtgta	acaagaagga	attotaaaat	gatgttatga	gcacgtgccc	149400
aatgtagtag	caatcccttq	tgcttcgata	cattggtggg	agacaaaach	gtacttaaat	149460
tgataaatcc	cttacatotc	attttaagga	gettagaetg	acteceatea	tgtagacatc	149520
agagatttct	tttttttt	ttttttt	ttttttttt	tttgtgacag	agttttgctc	149580
- <del>-</del>		• -		-5-5	- 3 -	

#### -138 of 185-

ttgttgccga ggctggagtg caatggcgtg atctcggctc accacaacct ccacctccca 149640 ggttcaagca atteteetge etcageetee egagtagetg ggattacage catgeaceae caegeetgge taattttgta tttttagtag agaeggggtt tetecatgtt gtggetggte 149700 149760 tegaacteet gaceteaggt gateeteegg ceteageeae ceaaagttet gaaattacag gegtgageea cegegeeeag eecagagatt tetaaacaga gttetaacea gatgetttte 149820 149880 cctgtcagta gaatgagaat gaattggagg tgggagagac tggcatgagg gacaccagtc 149940 agccagtgga attagctggt aatgttgata ggagaagaaa aagattcaaa gttaggtagt 150000 ggtagcaaga attagaggga aggtcggatt tatgatatgt ccaaggttga attctaaggt 150060 gaaatttggt ggcagatttc atgtgtaaat tgggaaggta gattgagttt ttttaacatg 150120 ggttttctaa catgtcaata gagtgactct gcagggggc ctgacgagag aacagtgcat ggggtgattc aacagccagt tgagccttca tgcagagcat ttaacactgt gactctgtag 150180 150240 actetggttg geagtaaaat tteattaaac caatatttaa accettaggt aataataaaa 150300 attgagggaa aaggatccag gttttgtatt ttttatgaat tcagttattg aattaaacag gaccttgcct caagaaataa tctaccaaca attaacttgt tttaaagcaa agttaggaag 150360 150420 tgagcatgtt caaattatta aataaaaaag taagctgtgt atttcattca tagaaataga 150480 ggctggccta cttcggatga ttctcagcat gtgattacag atgtgggctt atacatccta gggagttaag gcgtactctg gcttggatag agtagagctc tttgaaactc ttctctcacc 150540 150600 cagctagttt atatagacta gagaactaga atgtagcagc atactctqtc ttagaaqccc 150660 ttttatatag gagetggtet ggaaggtttg aaaacataac aaatgtgttg gtgteteeca atgtattget agattettae ecaagageat tateetggtt agggtttggt ttggttttgt 150720 150780 tttgtttttt aatgtttgcc acaaactaac actagatgtt agttctttca tcaagtgagg 150840 agagtagaag aaaagtccag aactctgaaa caccttttca aaagtttttc aagccatgat 150900 gtttgcaagt taaatgctct gttatgtaag caatataatc agtttttatt aatgtaacat 150960 tccttagtgt tttggggtat cacacaaaaa agaatatcca tatctggaag caacagcttt 151020 151080 agtetegete tgttgeceag gttggagtge agtggeacga teteageteg etteaacete tgeteecagg tteaageaat tettetgeet cageeteetg agtagetggg attataggea 151140 151200 cetgetacea tgeetggetg atttttatta ttttagtaga gacaggttte accatgttgg ceaggetggt ettgaactet taaceteagg tgaatcacee accteggeet eccaaagtge 151260 151320 tggaattaca ggcatgaacc accatggcca gccaaataag agcattttta atgtaaaatt 151380 atgcatgaaa tgtacattca attttgtctt tgtttactag gatccatgtt ctcacaagct 151440 atgaagaaat gggtgcaagg aaatactgat gaggtaaatc ctacctttag gataaaaaga 151500 tttctgttta taagtgccac cctcatgtaa gtgaggttta aaattttcct tttctttagg tcccatgttt aagcagcatg gcacatttat gttctcttac ccagaatgta ccaagaaagg 151560 -151620 gtggtccctt cttaacatct aacaattgcc tggtagtagc agtgaaggta tcttcagtca 151680 gaggetagga ccaetgaagg atatacatge atteaagttt ccateageea geaggeatea 151740 gtaatcagtg tgtagatcaa aagetcaaat gttteettee ceaetggeag ttttaettea 151800 agtagtggag gcttgctttt ttaatagtta attaagtaca ttgagagatg ggaggtgaaa aaaggaaaat gtttatttt gaccatctaa tatgaaagta gttcggtgtt aggtatccag tagttgacac tggaagacag ggaatgacat gttaatattc atagccagag ggtggcccag 151860 151920 151980 gttttttcgt acatgggaat gaaattetta tecaaataag tagaaattat gtgegtaage 152040 catttgttaa gagcactgag tatgtgcatc tcgatccatc taatqaataa ccattatcac 152100 cagtttaaat tattttcttt aggcccagga agagctagct tggaagattg ctaaaatgat 152160 agtcagtgac attatgcagc aggctcagta tgatcaaccg ttagagaaat ctacaaaggt aaggatgact tcgttttgtg taaactaaaa agtattattt tccaggtgta aaaataaaaa 152220 152280 aggatgate tegettegg taaactada agtattatt tecaggtgta aaaataaaa agaacataag gggttettt geetttgaag gattaactge tgtggggatt acettettat cataagcaac tagaaaattg acaaactaaa tgaaacaac ggttaaataca gggaaaccat ggaaaccaaa cagageccag tagtettget gaacgaaaga gttaaataca ggggtgaate acettgaggte aggageteaa gaccagectg gecaacatgg tgaaaccetg tettageegg gtgtggtgge aggaacctgt aateccaact atttgggagg 152340 152400 152460 152520 152580 152640 ctgaggcagg agaatcgctt gaaccaggga ggcggaggtt gcagtgagcc gagatcacac 152700 152760 gagageteaa tttgagtaga agttgtagga taaggtagea gaaaagagga agetgeecag 152820 aaagaaagcc gtagagatat ttagagagat tcccatggat ccttggccta ggagtgatct 152880 gtatatgtgt ggggtgaaaa cgcatgtgtc caggtagaga accccccaga aattagtagg 152940 ctgaatgatt gctggaacat agggctaaga aaagttcatg gccagaagga tctggccaga gtagagagac ttagtaatac acaaggcatt gggtagtgtc ttcacagagg ttatgcctta 153000 153060 ctactgaaga taaattagtc ctagagtaca agcacctgaa ccaagtttca aagcaaattt 153120 ttaaagggtc aaattaccta acaactgcat gccaaaacaa aggcctaacc ctctttacag 153180 taacacaaca aaattcagca cttcacagtg taaagttaga atgtctgacg tccaggctgg 153240 gcgcagtggc tcatgcctgt aatcccagca ctttgggagg ccgaggcagg tagatgacct gaggtcagga gttcaagacc agcctggcta acatggtgca accccgtctc tattaaaaat 153300 153360

### -139 of 185-

acaaaaactt agccaggcat ggtggccggc acctgtgatc ccggctactt gggaggctga 153420 ggcaggagaa tigccigaac ccaggaggig aaggiigcag tgagccgaga icgcaccact 153480 153540 cgtcaatcac aaattaccaa gcatgacatg aagttgacct ataaccagga gaaaactcaa 153600 tctatagaaa cagacccaga tgtgagaaag atgatgaatt tagcagacaa agaccatcaa 153660 gtggctattt taaatattaa aaatatgttc aagtggccag gtgcagtggc tcatgcctgt 153720 aatcccagca ctttgggagg ccaaggtggg taggagttca agaccagctt ggccaatatg 153780 gtgaaacccc ttctctacta aaaatacaaa aaaattagct gggcatggtg gcaggtgcct 153840 atagtoccag ctatatggga ggotgaggca caagaatcac ttgaacccgg gaggtggagg 153900 ttgaggttgc agtaagccga gattgtgcca cttgtactcc agcctggaca acagagtgag 153960 actotytoto aaaaaaaaaa aaaaaaaagt taaagaaaac aagagtataa tgagaaaaat 154020 gcaaaatagt tttaaaagaa ccaaatggaa tttcttaaaa taaaaaatac cagaaatggg 154080 ggccgggcgt ggtagctcac gtctataatc ccagcacttt gtgggggctg aggcaggcag atcacctgag atcggtagtt caaggccagc ctgaccaaca tggagaaacc tcatctctac 154140 154200 taaaaataca aaattagctg ggcgtggtgg cgcattgct gtaatcccag ctacttggga ggctgaggca ggagaattgc ttgaacccgg gaggcagagg ttgcggtgag ctgagattgc accagtgcac tccagcttgg gccacaagag tgaaactccg tctcaaaaaa aaaacagtag actcgaagaa ctagctgagt ttttctttac tttaggcagt aagtgtgacc 154260 154320 154380 154440 ttttgcaggt gactacttta gttcctcatg tcctcattag tagatcagag aaattcgaca ccaaaacccc aaaagaaaaa ccccttctaa tcctcattcc atgattttat gaatgcatga 154500 154560 agtectagge etgegaagga atacteatte tetttateet gtgttgatae etetetgett 154620 caacctccaa ctcgacattt gcctatagga tgtacttgga cattcagcat aaactacctc 154680 acaccattac tgaattgctt catgtgcaca tgtcccatgc cacaataccg gggaccttgt 154740 cttccgtgat atttgtccgc agtgctgtga ctacaggagg gagtcagtga atgtctgcat 154800 gtgtgtcttt accatccctc ttgaatatgc tctagggtta attcctagaa gtagaattac 154860 tctattgaaa attggcaata tttttcattc taatatctat tgccaacatg ggaaagcaag 154920 totggatgec agtecttgtt atatgeceet tgggtaagtt aegtaacete titaagette 154980 tgttcactca tättttaaca aggaaaatta caatatttta cctcacaaaa ttgtagtcag 155040 cttctggctg tcttaaactc tggtatatag taaacactaa gtgttggtgt ccatccttaa 155100 155160 155220 tttttccctt ggttggattc ttcaacacag ccaatgaaaa cagcactata tttctgatct 155280 gtcactgttg tttccaggag agaatgggag acaatcctag acttccacca taatgcagtt acctgtaggc ataattgatg cacatgatgt tcacacagtg agagtcttaa agatacaaaa 155340 155400 tggtattgtt tacattacta gaaaattatt agttttccaa tggcaataac ccatttatga 155460 gagtgtttta gcctactgga atagacaggg accacatcct ctgggaagca gataagcata 155520 gaactgatac ttgatgcaca ctcgtagtgg taactcatcc ctaatcagca ttgtaaagca ggtgccagag gtggtttgct ttgtccttcc aaagcaggtg agtcagccc accgagagcc aggcagcttt gagtggcagc gtggtgctag cagcttcagc ggaacagggt gagagttaat 155580 155640 155700 tatgcagtet tettgacage ggcattaatt tggaaggaaa etgacaagte atgggtcaag 155760 tttcagtgac ttcctccttc ctctgatggc agtatatagt tttcacattt taattcctcc tcctgagatg cactatactt aaaaccattc tcccctgc taacagaagg gtgtgaatct ggtttacttt gagcattagg atttgccct tttggaattct gcactccagt tacttaactt 155820 155880 155940 tcccttcaga atacatgtgg aaagaaagaa agaaatagcg atgactccac ttttgcccct gtggcacctt gaacaaagca gttcttccca aattatactt ttttttttt taaataaggt 156000 156060 gagcaggatg actggggaga gagaaacatt tgactttgac tgcctccccc attctttgct gtgagctgga aagtgtgcag ttggtcgtct ttcttctcct ttctttagga tagtaagaga ctcactcact gcacttctgc tcagttggct tctgcatcgg gatcacacag ccatcagcag 156120 156180 156240 gactgccag ttggtgagca cactccattg accacgtggc gccagcgctt cctcaatgca catgattgag aggaaagaaa gttctcttag atgttactgc ttttgctcag actttgcaaa aaaaaaaata tatatata tgtataaata tataattatt aatcactttt gtccttgaga 156300 156360 156420 aagtettgaa tgaacagaga atttatteca ttgcaatatt tgattgtata gaggeacact 156480 gtttcatcga cagaagaagc aaaaaggctt tgtgtaagtt tttggtacta tgtaccacct 156540 ctgttattct tttaaagctg aagtattcat gtacttaaac catattatat ttaattgtgt 156600 ttgattttaa aatatatat tatgaattot atttaaaatt gtgtcaactt totgotttoa 156660 gggcatttat ggctcttctg ttgaaatata ttgatctttc caaatatttt catttgcttt ctaaaaaaccc agaacatgag ccactactgg actttgcctt gtgtttgaag tgtatggcat 156720 156780 aaacccaagg titttattag tcatctatgc tgtgaltaat tcatttigtt citttaacaa 156840 aatatttcca tccacttcac attgcttcaa tctttaacag aaaagcaata taaaggttat 156900 agaataaaat gtggttttgg gcaactcttg ctgcctctgc atgttttgga ataacaattt ctacaagact ctaggctgtt taaactagtg ctttcagtta agataaattc taatcatttc 156960 157020 tttgtatata cattttgtgc ttctgagcta gagatgccaa gtagttgtaa actgcttata aagagaatag cagcaaattt gagactcggc tacttttttc tgccccacct gctttgagac 157080 157140

### -140 of 185-

ccttgtactc att	gtggccc g	aaattatta	gccagattta	atatttgatc	taaagtaggt	157200
caggetetgt gea	ttaaagt t	ggaatttga	ttcctccaac	attgagcacc	caccatgttc	157260
	attgtgcc c	acaaaataa	gattccctgg	tggagttttt	atgggttcaa	157320
ataatcagtt gaa						157380
aaagaaaaga tat	tagagag a	aagtggtac	ctttgtaact	tgatgtgtct	tcatcattcg	157440
gtaagatttg atg	gaaagtaa a	aagcaaatg	tcagccaaat	ccagtgaaca	gcaataaaac	157500
agggagtaac ttt	ttataac t	ttttctact	tggatttcaa	cattcagtag	agcttttcga	157560
aatgtaagta gtt						157620
gtcattctga att	gtaacaa a	gtacaaact	tctttgctgt	tttatttaag	tactgagagc	157680
taagcacctg atg	gaagtgac t	gacctctct	ccagtgacag	tgtttgggta	cctgcctgac	157740
ttcaggagtg ggg						157800
tgcccacaca cca	igttgatt g	gacctgggt	tgaactcctg	atccagacag	gcccaagaca	157860
gttcttaatg tta	agaattt t	ggggccggg	cacggtggct	catgcctgta	attgcaacac	157920
tttgggaggc cga	gacagge g	gatcacttg	aggtcagggg	ttcgaggcca	gcctggccaa	157980
catggtgaaa ccc	tgtcttt a	ctaaaaata	caaaaattag	ctgggcatgg	tggcgcacgc	158040
ctgtaatccc ago	tacgtgg g	tggctgaga	caggggaatc	gcttgaacct	ggaggcggag	158100
gttgtgcaat gag	rccgagac c	gtgtcactg	cattccagcc	tgggtgacag	agggagactc	158160
tgtctccaaa aat	aaaaata a	gaaaaagaa	ttttgggcta	ggtgcagtgg	ctcacgcctg	158220
taattacagc att	ttggaag g	cccaagatg	ggcagatcac	ttgaggacag	gagttcgaga	158280
ccagcctgga caa	catggtg a	aactccatc	tctactaaaa.	agacaaaagt	tagccagatg	158340
tggtgatggg cac	ctataat c	ctagctcct	cgggaggctg	gggcaggaga	atcacttgaa	158400
cccaggaagc aga	igattgca gʻ	tgagccaag	atcacatctc	tgcactccag	cctgggcaac	158460
agagcaagac tct	gtctcaa aa	aaaaaaga	atttggccag	gcgcagtggt	tcacgcctgt	158520
aatcccagca ctt						158580
cctggctaac atg	gtgaaac c	ctgtctcta	ctaaaaatac	aaaacattag	ccgggtgtgg	158640
tggtgggcac ctg	rtagtccc ag	gctactagg	gaggctgagg	cagaggaagg	atgtgaaccc	158700
aggaggcgga gct	tgcagta ag	gccaagatc	gtgccactgc	actacagtct	gggcgacaga	158760
gtgagactcc gtc	tcaaaaa a	aaaagaat	tttggccggg	tgcggtggca	catgcctgta	158820
gtcccagcac ttt	gggagac ca	aaagtgggc	ggattacctg	aggtcaggag	ttcaagacca	158880
gtccggccaa tat						158940
gtggtggcgg gca						159000
ggttgcagta agc						159060
aaaaaaaaag aat	tttgcat go	gggaaggag	agatactgtt	caccatctgg	aatggtgctt	159120
ggatgtggca ctt						159180
ctgagatagc agg						159240
catcettgea ttg	gactaca ti	caatctgtc	agttatcctt	ataatgattt	ttgattttt	159300
ttttttgaga tgg	agtttcg ct	cttgttgc	ccaggctgga	gtgcaatggc	acgatctcgg	159360
ctcaccacaa cct	ccacctc co	caggttcaa	gtgattctgc	tgcctcagcc	tcctgagtaa	159420
ctgggattac agg	catgcgc ca	accacacct	ggctaatttt	gtatttttag	tagagacggg	159480
gtttctccat gtt	ggtcagg ct	ggtctcga	actcccaacc	tcaggtgatc	accetatete	
ggcctcccaa agt	gctggga tt	acaggcgt				
	ctgaagt ga		aagccatggt	acceggtetg	ttttttgatt	159600
ttttgaaacc agt		gtttttt	aattacgtga	acceggtetg aggagtttg	ttttttgatt gctaaaatac	159600 159660
ttttgaaacc agt tgccatactg ccc	taatgcc ta	igttttttt iatgattat	aattacgtga gtattctcag	acceggtetg <b>â</b> aggagtttg catgtetgea	ttttttgatt gctaaaatac aagtactgct	159600 159660 159720
ttttgaaacc agt tgccatactg ccc gatttctgga gaa	taatgcc ta taatttt to	agttttttt aatgattat stttagtaa	aattacgtga gtattctcag acttcactta	acceggtetg aggagtttg catgtetgea agtegteatg	ttttttgatt gctaaaatac aagtactgct tgtattctct	159600 159660 159720 159780
ttttgaaacc agt tgccatactg ccc gatttctgga gaa caaaatggta tcc	taatgcc ta taatttt to taaccta at	agttttttt aatgattat stttagtaa sggagctaa	aattacgtga gtattctcag acttcactta aagacacccc	acceggictg åaggagtttg catgtctgca agtcgtcatg ttgtttttat	ttttttgatt gctaaaatac aagtactgct tgtattctct aacaagcagt	159600 159660 159720 159780 159840
ttttgaaacc agt tgccatactg ccc gatttctgga gaa caaaatggta tcc tactgaggcc cag	taatgcc ta taatttt to taaccta at gaagggg ag	agttttttt aatgattat etttagtaa eggagetaa gaagteeet	aattacgtga gtattctcag acttcactta aagacacccc ggcttgtgag	acceggictg åaggagtttg catgtctgca agtcgtcatg ttgtttttat atgatcacca	ttttttgatt gctaaaatac aagtactgct tgtattctct aacaagcagt ttagaactca	159600 159660 159720 159780 159840 159900
ttttgaaacc agt tgccatactg ccc gattctgga gac caaaatggta tcc tactgaggcc cag ggcctgggcc agt	taatgoo ta taatttt to taacota at gaagggg ag gootttt ca	agttttttt aatgattat etttagtaa eggagetaa gaagteeet itgettete	aattacgtga gtattctcag acttcactta aagacacccc ggcttgtgag agatccttcc	acceggictg åaggagtttg catgtcttgca agtcgtcatg ttgtttttat atgatcacca aaagaataat	tttitigatt gctaaaatac aagtactgct tgtattctct aacaagcagt ttagaactca gaagattata	159600 159660 159720 159780 159840 159900 159960
ttttgaaacc agt tgccatactg ccc gatttctgga gaa caaaatggta tcc tactgaggcc cag ggcctgggcc agt accgctttta gca	taatgcc ta taatttt to taaccta at gaagggg ag gcctttt ca attgtaa ta	agtttttt atgattat stttagtaa sgagctaa gaagtccct atgcttctc aacccaga	aattacgtga gtattctcag acttcactta aagacacccc ggcttgtgag agatccttcc aatagaaagc	acceggictg  åaggagtttg catgtctgca agtcgtcatg ttgttttat atgatcacca aaagaataat tttttggtta	ttttttgatt gctaaaatac aagtactgct tgtattctct aacaagcagt ttagaactca gaagattata qagtactggt	159600 159660 159720 159780 159840 159900 159960 160020
ttttgaaacc agt tgccatactg ccc gatttctgga gaa caaaatggta tcc tactgaggcc cag ggcctgggcc agt accgctttta gca agaagtttgg cgg	taatgoo ta taatttt to taacota at gaagggg ag gootttt ca attgtaa ta gagagat aa	agtttttt atgattat ettagtaa eggagetaa gaagteeet atgettete aaacecaga atttttaca	aattacgtga gtattctcag acttcactta aagacacccc ggcttgtgag agatccttcc aatagaaagc aaatttgtaa	acceggictg åaggagtttg catgtctgca agtegtcatg ttgtttttat atgatcaca aaagaataat tttttggtta atacctgcca	ttttttgatt gctaaaatac aagtactgct tgtattctct aacaagcagt ttagaactca gaagattata gagtactggt attctatata	159600 159660 159720 159780 159840 159900 159960 160020 160080
ttttgaaacc agt tgccatactg ccc gatttctgga gaa caaaatggta tcc tactgaggcc cag ggcctgggcc agt accgctttta gca agaagtttgg cgg ctaggcaagg tct	taatgcc ta taatttt to taaccta at gaagggg ag gcctttt ca attgtaa ta gagagat aa ctggcct to	agtttttt atgattat ctttagtaa cggagctaa gaagtccct atgcttctc aacccaga atttttaca gtaaaccc	aattacgtga gtattctcag acttcactta aagacacccc ggcttgtgag agatccttcc aatagaaagc aaatttgtaa ctcaaggtta	acceggictg åaggagtttg catgtctgca agtegtcatg ttgtttttat atgatcacca aaagaataat ttttggtta atacctgcca caactttggt	ttttttgatt gctaaaatac aagtactgct tgtattctct aacaagcagt ttagaactca gaagattata gagtactggt attctatata qgcccacact	159600 159660 159720 159780 159840 159900 159960 160020 160080 160140
ttttgaaacc agt tgccatactg ccc gatttctgga gaa caaaatggta tcc tactgaggcc cag ggcctgggcc agt accgctttta gca agaagtttgg cgg ctaggcaagg tct aatagttacc cac	taatgcc ta taatttt to taaccta at gaagggg ag gactttt ca attgtaa ta gagagat aa ctggcct to tgaggcc ct	agtttttt atgattat cttagtaa cggagctaa gaagtccct atgctccc aaacccaga attttaca gtaaaaccc	aattacgtga gtattctcag acttcactta aagacacccc ggcttgtgag agatccttcc aatagaaagc aaatttgtaa ctcaaggtta gaacattgag	acceggictg åaggagtttg catgtctgca agtegtcatg ttgtttttat atgatcacca aaagaataat tttttggtta atacctgcca caactttggt cactagagga	tttttgatt gctaaaatac aagtactgct tgtattctct aacaagcagt ttagaactca gaagattata gagtactggt attctatata ggcccacact agcccctctg	159600 159660 159720 159780 159840 159900 160020 160080 160140 160200
ttttgaaacc agt tgccatactg ccc gatttctgga gaa caaaatggta tcc tactgaggcc cag ggcctgggcc agt accgctttta gca agaagtttgg cgg ctaggcaagg tct aatagttacc cac cttgggcagg act	taatgcc ta taatttt to taaccta at gaagggg ag gcctttt ca attgtaa ta gagagat aa ctggcct to tgaggcc ct	agtttttt atgattat ctttagtaa cggagctaa gaagtccct atgcttctc aacccaga attttaca gtaaaccc ctccgggt cgcagagta	aattacgtga gtattctcag acttcactta aagacacccc ggcttgtgag agatcctcc aatagaaagc aaatttgtaa ctcaaggtta gaacattgag ggagcggtga	acceggictg  åaggagtttg catgtctgca agtcgtcatg ttgttttat atgatcacca aaagaataat tttttggtta atacctgca cactagagga tactgtgat	tttrttgatt gctaaaatac aagtactgct tgtattctct aacaagcagt ttagaactca gaagattata gagtactggt attctatata ggcccacact agcccctctg tctgggcagg	159600 159660 159720 159780 159840 159900 159960 160080 160140 160200 160260
ttttgaaacc agt tgccatactg ccc gattctgga gaa caaaatggta tcc tactgaggcc cag ggcctgggcc agt accgctttta gca agaagtttgg cgg ctaggcaagg tct aatagttacc cac cttgggcagg act tggagatggc cag	taatgcc ta taatttt to taaccta at gaagggg ag gcctttt ca attgtaa ta gagagat aa ctggcct tc tgaggcc ct gggcgtg gt	agtttttt atgattat tttagtaa tgagctaa tgagtcct ttgcttctc aacccaga tttttaca ttaaaaccc tcagagta tcaaaggat tgcagagta	aattacgtga gtattctcag acttcactta aagacacccc ggcttgtgag agatccttcc aatagaaagc aaatttgtaa ctcaaggtta ggagcggtga ggagcggtga cactggaggg	acceggictg  åaggagtttg catgtcttgca agtcgtcatg ttgtttttat atgatcacca aaagaataat tttttggtta atacctgcca caactttggt cactagagga tactgtggat agcagtgtga	tttttgatt gctaaaatac aagtactgct tgtattctct aacaagcagt ttagaactca gaagattata gagtactggt attctatata ggcccacact agcccctctg tctggcagg gtaaaggccc	159600 159660 159720 159780 159840 159900 160020 160080 160140 160260 160260 160320
ttttgaaacc agt tgccatactg ccc gatttctgga gaa caaaatggta tcc tactgaggcc cag ggcctgggcc agt accgctttta gca agaagtttgg cgg ctaggcaagg tct aatagttacc cac cttgggcagg act tggagatggc cag tgagggcatt cat	taatgcc ta taatttt to taaccta at gaaggg ag gcctttt ca attgtaa ta gagagat te tgaggcc ct ggggcgtg gt gggttcagg ga	agtttttt atgattat cttagtaa cgagctaa gaagtccct atgcttctc aacccaga atttttaca gtaaaaccc cccagagt cgcagagta aataaagga	aattacgtga gtattctcag acttcactta aagacaccc ggcttgtgag agatccttcc aatagaaagc aaatttgtaa ctcaaggtta gaacattgag ggagcggtga cactggaggg gcccactggc	acceggictg  åaggagtttg catgtctgca agtcgtcatg ttgttttat atgatcacca aaagaataat tttttggtta atacctgcca caactttggt cactagagga tactgtggat agcagtgtga ttgcttqqca	tttttgatt gctaaaatac aagtactgct tgtattctct aacaagcagt ttagaactca gaagattata gagtactggt attctatata ggcccacact agcccctctg tctggcagg gtaaaggccc cacaggagag	159600 159660 159720 159780 159840 159900 160020 160080 160140 160260 160320 160380
ttttgaaacc agt tgccatactg ccc gatttctgga gaa caaaatggta tcc tactgaggcc cag ggcctgggcc agt accgctttta gca agaagtttgg cgg ctaggcaagg tct aatagttacc cac cttgggcagg act tggagatggc cag tgagggcatt cat tgggtattcc tgc	taatgcc ta taatttt to taaccta at gaagggg ag gcctttt ca attgtaa ta gagagat te tgaggcc ct tgaggcc ct gggcgtt ca gtgatgtc ca gttagta aac gttagta aac gtgatgtc ca gtttagta aac gtttagta aac	agtttttt atgattat cttagtaa cgagctaa cgagtccct atgcttctc aacccaga atttttaca cttaaaaccc cccagagt agcagagt agcagagt agcagagt agtaaaagga agggttgct	aattacgtga gtattctcag acttcactta acgacaccc ggcttgtgag agatccttcc aatagaaagc aaatttgtaa ctcaaggtta gaacattgag ggacggtga cactggaggg gcccactggc aacaagtatt	acceggictg åaggagtttg catgtctgca agtcgtcatg ttgttttat atgatcacca aaagaataat tttttggtta atacctgca caactttggt cactagagga tactgtggat agcagtgtga attgcttggca ttgcttggca ttgcttggca	tttttgatt gctaaaatac aagtactgct tgtattctct accaagcagt ttagaactca gagattata gagtactggt attctatata ggcccacact agcccctctg tctgggcagg gtaaaggcc cacaggagag gttcctcca	159600 159660 159720 159780 159800 159960 160020 160080 160140 160200 160320 160380 160440
ttttgaaacc agt tgccatactg ccc gatttctgga gaa caaaatggta tcc tactgaggcc cag ggcctgggcc agt accgctttta gca agaagtttgg cgg ctaggcaagg tct aatagttacc cac cttgggaatggc agt tggagatggc cag tgagaggcatt cat tgggtattcc tgc aactgcctgc tct	taatgcc ta taatttt to taaccta at gaagggg ag gcctttt ca attgtaa ta gagagat te tgaggcct te gggcgtg ca ggttcagta ca ggttcagta to ggcatat ca ggcatat ca ggcatat ca ggcatat to	agtttttt atgattat cttagtaa cgagccct atgcttctc aacccaga atttttaca gtaaaccc ctcaggtt acaaaccc ctcagggt acaaagga agggttgct ctttatgta agaatgtc	aattacgtga gtattctcag acttcactta aagacacccc gagatccttcc aatagaaagc aaatttgtaa ctcaaggtta gaacattgag ggagcggtga ggacgaggg gcccactggc aacaagtatt acagaactca	acceggictg åaggagtttg catgtcttgca agtcgtcatg ttgttttat atgatcacca aaagaataat tttttggtta atacctgca cactttggt cactagaga tactgtggat agcagtgtga ttgcttggca ttcctcagtct cctggatga	ttttttgatt gctaaaatac aagtactgct tgtattctct aacaagcagt ttagaactca gagtactggt attctatata ggcccacact agcccctctg tctgggcagg gtaaaggccc cacaggagag gttcctctca ttcagccct	159600 159660 159720 159780 159980 159960 160020 160080 160140 160200 160360 160380 160440 160500
ttttgaaacc agt tgccatactg ccc gatttctgga gaa caaaatggta tcc tactgaggcc cag ggcctgggcc agt accgctttta gca agaagtttgg cgg ctaggcaagg tct aatagttacc cac cttgggcagg act tggagatggc cag tgagggcatt tgggtattcc tgc aactgcctgc tct, tgcctaaagg tga	taatgcc ta taatttt to taaccta at gaaggg ac gcctttt ca attgtaa ta gagagat tc tgaggcct ct gggcgtt ca gttcagta ca gttcagta tc gttcagta tc cagtgcat tc	agtttttt atgattat cttagtaa cgagctaa ggagttctc aacccaga attttaca gtaaaccc ctccgggt cgcagagta agggttgct ctttatgta cagaatgc	aattacgtga gtattctcag acttcactta aagacaccc ggcttgtgag agatccttcc aatagaaagc aaatttgtaa ctcaaggtta gaacattgag ggagcggtga cactggaggg gaccactggc aacaagtatt acagaactca caccccc	acceggictg åaggagtttg catgtctgca agtcgtcatg ttgttttat atgatcaca aaagaataat tttttggtta atacctgca caactttggt cactagagga tactgtggat agcagtgtga tcctcagtct cctggatgca tcctggatgca cctcagtcca	tttttgatt gctaaaatac aagtactgct tgtattctct aacaagcagt ttagaactca gagattata gagtactggt attctatata ggcccacact agcccctctg tctgggcagg gtaaaggccc cacaggagag gttcctcta ttagcccct tgaagcccct tgaagcact	159600 159660 159720 159780 159940 159960 160020 160080 160140 160260 160380 160440 160500 160560
ttttgaaacc agt tgccatactg ccc gatttctgga gaa caaaatggta tcc tactgaggcc cag ggcctgggcc agt accgctttta gca agaagtttgg cgg ctaggcaagg tct aatagttacc cac cttgggcagg act tggagatggc cag tggaggtatt cat tgggtattcc tgc aactgcctgc tct tgccaaagg tga gtcagactgg ccc	taatgcc ta taatttt to taaccta at gaagggg gcctttt ca gagagat aa gtggcct ct gggcgtg ca gttgatgtc gc gttcagga ac gttcagga ac gttcagga ac gttcagta ac ggcata tc agtctgt gga ggtctagta ac ggcatat tc agtctgt gg	agtttttt atgattat cttagtaa cgagctaa gaagtccct atgctcccaga atttttaca gtaaaccc ctccgggt cgcagagta agtaaagga agtaaagga cgttatgtc ctcccgg	aattacgtga gtattctcag acttcactta aagacacccc ggcttgtgag agatccttcc aatagaaagc aaatttgtaa ctcaaggtta gaacattgag ggagcggtga cactggaggg gcccactggc aacaagtatt acagaactca cacccaccc	acceggictg  åaggagtttg catgtcttgca gttgttttat atgatcacca aaagaataat tttttggtta atacctgcac cactagaga tactgtgga tactgtgga tactgtgca tcctcagtct cctcagtct cctcagtct cctcagtct cctcagaccac cctcaaccac gcttagttc	tttrtgatt gctaaaatac aagtactgct tgtattcct tacaagcagt ttagaactca gaagattata gagtactggt attctatata gagcccctctg tctgggcagg gtaaaggccc cacaggagag gttcctcca ttgaagcacct agctactca	159600 159660 159720 159780 159940 159960 160020 160080 160140 160200 160320 160320 160340 160560 160560
ttttgaaacc agt tgccatactg ccc gattctgga gaa caaaatggta tcc tactgaggcc cag ggcctgggcc agt accgcttta gca agaagtttgg cgg ctaggcaagg tct aatagttacc cac cttggggaggcatt tggagatggc cag tgagggcatt cat tgggtattcc tgc aactgcctgc tct gccaaagg ccc ggagctgggat tta	taatgcc ta taatgtt to taatgtt to taaccta at gacgttta ac gacttta ac gacgta cc gatggccc ct gggcgtt cc gggcgtt cc ggttcagga ttagta ac gttagta ac gcgatgtc ggttcaga gttcaca ccaagaa gccaagaa	agtttttt attgattat tttagtaa tgagttaa tgagttect tgcttctc taacccaga tttttaca tcacagggt ctccgggta tataaagga tgggttgct tttatgta tagatgtc tccttccc tgcaaggagta	aattacgtga gtattctcag acttcactta aagacacccc ggcttgtgag agatccttcc aatagaaagc aaatttgtaa ctcaaggtta gaacattgag ggagcggtga cactggaggg gcccactggc aacaagtatt acagaactca caccccaccc	acceggictg  åaggagtttg catgtcttgca gttgttttat atgatcacca aaagaataat tttttggtta atacctgcca cactttggt cactagagga tactgtggat agcagtgtga tcctcagaccac cctggatca cctggatca cctggatca cctggatca cctggatca cctggatca cctgatct cctgatca cgctaaccac gctaaccac gctaaccac	tttttgatt gctaaaatac aagtactgct tgtattcct aacaagcagt ttagaactca gaagattata gagtactggt attctatata gagtaccecttg tctggcagc cccacaggagag gttcctctca ttcagcccct tcagcccct agctcctct tcagcccct agctctgaaagcacct agcttgaaaga tgccatttcc	159600 159660 159720 159720 159980 159960 160020 160020 160260 160320 160320 160380 160440 160500 160500 160620
ttttgaaacc agt tgccatactg ccc gatttctgga gaa caaaatggta tcc tactgaggcc cag ggcctgggcc agt accgctttta gca agaagtttgg cgg ctaggcaagg tct aatagttacc cac ttgggcagg act tggagatggc cag tgagggcatt cat tgggtattcc tgc aactgcctgc tct tgcctaaagg tga gtcagactgg tga gtcagactgg cag tcagactgg cac tcagactgg cac tcagactgg cac tcagactgg cac tcagactggcat tta	taatgcc ta taatttt to taaccta at gaaggggggctttt ca gagggcct ct ggggcgtg cc ggggcgtc gg tgatgat cc gggcacat to ggcacat to agctagta ac ggcacat to agctagta to agctagta to agctctgt gg acctagta to acctagta to acctagta to	agtttttt atgattat tttagtaa tgagctaa tgagctcct atgcttctc aacccaga attttaca tcagagta tcagagta acagggta acaaggga tttatgta cagaatgcc tcagaggag tcattccc tcagagta acaaggag tcattccc	aattacgtga gtattctcag acttcactta aagacacccc ggcttgtgag agatccttcc aatagaaagc aaatttgtaa ctcaaggtta ggagcggtga gacacattgga ggccactggc gaccactggc aacaagtatt acagaactca cacccaccc gacgaggg gacgaggg gacgaggatg gacgaggatg	acceggictg  åaggagtttg catgtcttgca agtcgtcatg ttgttttat atgatcacca aaagaataat tttttggtta atacctgcca caactttggt cactagtgta tactgtgga tactgtggat agcagtgtga tcctcagtct cctggatgca cctgtagtca cctgtagtca cctgatgca cctcatacccc gcttagttc	tttttgatt gctaaatac aagtactgct tgtattctct aacaagcagt ttagaactca gaagattata gagtactggt attctatata gagcccctctg tctggcagg gtaaaggccc cacaggagag gttcctcta ttcagccct tgaagcacct tgaagcacct tgaagcacct tagctataca ttcagcccct agctgaagcacct agctgaagcacct agctgaagcacct agctgaagcaccc aagtgaccc	159600 159660 159720 159780 159980 159960 160020 160080 160140 160260 160320 160380 160440 160500 160620 160680 160680 160740
ttttgaaacc agt tgccatactg ccc gatttctgga gaa caaaatggta tcc tactgaggcc cag ggcctgggcc agt accgctttta gca agaagtttgg cgg ctaggcaagg tct aatagttacc cac cttgggcagg act tggagatggc cag tgagggcatt cat tgggtattcc tgc aactgcctgc tct gcctaaagg tga gtcagactgg ccc gagctgggat tca acggcttcag ctg aggctggct ctc	taatgcc ta taatgcc ta taatttt to taaccta at gaaggggtttt ca gattggaat to taagggccc co gattgaggccc co gattagta to gattagta to gattagta to gattagta to gattagta to gattagta to accacata ac accacata ac accacatc	agtttttt atgattat ttagtaa ggagctaa gaagtccct atgcttctc aacccaga atttttaca gtaaaccc cccagagta ataaagga atggttgct tttatgta agaatgtc gcaaggag aataaagga atccttccc gcaaggag aataacca gcaaggag aatgaac tacttgac	aattacgtga gtattctcag acttcactta aagacaccc ggcttgtgag agatccttcc aatagaaagc aaatttgtaa ctcaaggtta ggagcggtga cactggaggg gcccactggc gacactggaggg gcccactggc aacaggatatt acagaactca cacccaccc cctagagaggg gtgccacagg	acceggictg  åaggagtttg catgtctcatg ttgttttat atgatcacca aaagaataat tttttggtta atacctgcac caactttggt cactagggat acctgtggat acctgtggat acctgtggat acctgttgca tcctcagtct cctggatca cctcataccac gcttagtttc gaacaactgt	tttttgatt gctaaatac aagtactgct tgtattctct aacaagcagt ttagaactca gaagattata gagtactggt attctatata ggccccctctg tctgggcagg gtaaaggccc cacaggagag gttcctcta ttgaagccct tgaagcccct tgaagcccct agcttgaaag gcttcgaaag	159600 159660 159720 159780 159980 159960 160020 160080 160140 160260 160320 160380 160440 160560 160680 160680 160740 160800
ttttgaaacc agt tgccatactg ccc gatttctgga gaa caaaatggta tcc tactgaggcc cag ggcctgggcc agt accgctttta gca agaagtttgg cgg ctaggcaagg tct aatagttacc cac ttgggcagg act tggagatggc cag tgagggcatt cat tgggtattcc tgc aactgcctgc tct tgcctaaagg tga gtcagactgg tga gtcagactgg cag tcagactgg cac tcagactgg cac tcagactgg cac tcagactgg cac tcagactggcat tta	taatgcc ta taatgcc ta taatttt to taaccta at gaaggggtttt ca ggcctttt ca ggcctttaa ta gggcgtc ct ggggggtc ct gggatgtc gg gtttagta tc ggcacat tc agcacat tc agcacat ac agcccca ca agcccca ca	agtttttt atgattat attagattat attagattaa aggagtcoct atgcttctc aacccaga atttttaca ataaaccc accagagta agagttgct attatgta agaatgcc agaatgaa agaatgac acaaggag aataagaa agaatgac acatgaga	aattacgtga gtattctcag acttcactta aactccc ggcttgtgag agatccttcc aatagaaagc aaatttgtaa ctcaaggtta ggaacattggag ggacgagtga cactggaggg gcccactggc aacaagtatt acagaactca cacccaccc cctagagagg gtgccttcag ttccacacac aagttttct	acceggicty  åaggagttty catgtcttgca agtcgtcatg ttgttttat atgatcacca aaagaataat tttttggtta atacctggca caactttggt cactaggga tactgtggat agcattggat agcattggat acctggatga ttgctcagtct cctggatga tcctcagtct cctagatgca tcctagttgca tcctagttgca tcctagttttc cctagttct cctagttttc cctagttttc cctagttttc cctagttttc cctagttttc cctagttttc cctagttttc cctaacccgt tcataccactgt ccataccactt taqtcttct	tttttgatt gctaaaatac aagtactgct tgtattctct aacaagcagt ttagaactca gaagattata gagtactggt attctatata ggcccacact agcccctctg gtaaaggccc cacaggagag gttcctcca ttgaagcacct tgaagcacct agcttgaaag gttccccct ggcaattcc agcttgaaag gttcctcca ttgaagcacct agcttgaaag ttgaaag tagcatttcc agcttgaaag tagcatttcc ggaaagaggc ttcttqqaaa	159600 159660 159720 159780 159980 159960 160020 160080 160140 160260 160320 160380 160440 160500 160620 160680 160680 160740

### -141 of 185-

				•		
agtcaccctg	taagtggcag	gcactgttta	cagggacaca	ggaaggaata	aaaacttgca	160980
ggcaccttgg	agcttgcatt	, ctattgaaga	ggtaatggaa	gttgggatag	cagctaaact	161040
atgctggtat	tggccaggcg	cagtggctca	cacctgtaat	cccagcactt	tggaggccaa	161100
ggtgggcaga	tcatgaagtc	aggagatcga	gaccatcctg	gctaacatgg	tgaaaccccg	161160
tctctactaa	aagtaaaaaa	aaaaattagc	caggtgtggt	ggcgggcgcc	tgtagtccca	161220
gctacttggg	aggctgaggc	aggagaatgg	tgtgaaccca	ggaggcgaag	attgcagtga	161280
gccgagatgg	caccactgca	ctccagcctg	ggtgacagag	cgagactctg	tctcagaaaa	161340
aaaaaatatg	ctggtagttt	tgattcaaga	tggcctttgg	agcccatgat	ttaggtctcg	161400
tacccaccaa	ggtctactgg	aaaacatcag	gctctcctgc	tatagaccca	tagggagagc	161460
tgcagccgag	agggggagct	gaagagaagt	gccccttctg	tgtcctgtca	gcctcatcct	161520
tccgcaagga	ccagttgctg	tgccactcca	ttcacttgct	gcaagactgg	aggtttttcc	161580
tcaggtgttg	agcacctggt	ttacaagatg	tcagcatctt	gatgcctgag	accatcaagg	161640
caagtctctg	aacagggctt	accttagagt	aaggcttaga	agaggccgta	aagtcagtct	161700
cagctccgtg	gctctgcaga	gctttgggac	atgtgaattc	ttaaaaacaa	gactattgta	161760
cagttactat	atgcatgcag	tataaaatta	taaccttgga	aaatcctagc	tagctgttga	161820
gctaattcca	taaagtaatc	agctcctgag	ttctgcagtg	gtaataataa	tcagcataat	161880
gagtaaacac	tgtgtgtgcc	aggcagcgtc	tcatttgatc	cttgtgataa	tcttgtaagt	161940
			tttttttt	ttttagagag	ggtctcacta	162000
tgttgcccag	gctagtcttg	aattc				162025

<210> 18 <211> 162025 <212> DNA

<213> Homo Sapien

<220>

<221> allele
<222> 156,277
<223> Nucleotide sequence of chromosome 17 containing
 the genomic sequence of the allelic variant
 AKAP10-1

<400> 18						
gaattcctat	ttcaaaagaa	acaaatgggc	caagtatggt	ggctcatacc	tqtaatccca	60
gcactttggg	aggccgaggt	gagtgggtca	cttgaggtca	ggagttccag	gccagtctgg	120
ccaacatggt	gaaacactgt	ctctactaaa	aatacaaaaa	ttagccgggc	gtggtggcgg'	180
gcacctgtaa	tcccagctac	tcaggaggct	gaggcaggag	aattgcttga	acctgggaga	240
tggaggttgc	agtgagccga	gatcgcgcca	ctgctctcca	gcctgggtgg	cagagtgaga	. 300
ctctgtctca	aaaagaaaca	aagaaataaa	tgaaacaatt	ttgttcacat	atatttcaca	360
aatttgaaat	gttaaaggta	ttatggtcac	tgatatcctg	tttcattctt	tatataatca	420
ttaagtttga	aatgtatact	tgcactacta	acacagtagt	taatcttagt	cctacaagtt	. 480
actgctttta	cacaatatat	tttcgtaata	tgtatgcact	ggtgtttatg	tacgtgttta	540
tgtttatatc	tgttaaaatt	agcagtttcc	atctttttct	attttgtacc	atcacatcag	600
ttcagaagga	ttgacagagc	aaaatgattt	gatgaagtat	aaaagtcaca	tggtgagtgg ·	660
cataaataca	actctgaaca	attaggaggc	tcactattga	ctggaactaa	actgcaagcc	720
agaaagacac	atatcctata	tgtcaagaga	tgtaccaccc	aggcagttaa	agaagggaag	780
tacacataga ·	aagcacaatg	gtgaataatt	aaaaaattgg	aatttatcag	acactggatt	840
catttgctcc	taaagtcaga	gtcctctatt	gtttttttgt	ttttgtgggt	ttctttttaa	900
attttttat	tttttgtaga	gtcggagtct	cactgtgtta	cccgggctgg	tctagaactc	960
ctggcctcaa	acaaacctcc	tgcctcagct	tcccaaagca	ttgggattac	agacatgagc	1020
cactgagece	agcccagacg	ctttagcatt	tatgaagctt	ctgaaatagt	tgtagaaacc	1080
gcataagctt	tccatgtcac	tttcaaagtt	tgatggtctc	tttagtaaac	caaccaagtt	1140
attcctcaag	ggcaaaataa	catttctcag	tgcaaaactg	atgcacttca	ttaccaaaaq	1200
gaaaagacca	caactataga	ggcgtcattg	aaagctgcac	tcttcagagg	ccaaaaaaaa	1260
aggtacaaac	acatactaat	ggaacattct	ttagaagagc	cccaaagtta	atqataaaca	1320
ttttcatcaa	agagaaaaga	gaacaaggtg	ttagcaaatt	cctctatcaa	ataacactaa	1380
acatcaagga	acatcaatgg	catgccatgt	ggaagaggaa	gtgctagctc	atgtacaaac	1440
cagtagataa	tttcaacttg	ctgccgaatg	aaacctcttt	gcaaggtatg	aatcagcact	1500
tctcatgttt	gttttgcttt	gttttgtttt	gtttttagag	acaggccctt	gctctgtcac	1560
acaggctgga	gtgcagtggc	acgatcagag	ctcactgcaa	cctgaaactc	ctgggctcaa	1620
gggatcctcc	tgccttagcc	tcccaagtag	ctgggactac	aggcccacca	tgcccagcta	1680
atttttaaa	ttttctatag	agatgggatc	tcactagcac	ctttcatgtt	tgatgttcat	1740
atacaacgac	caaggtacaa	tgtggaaaag	ggtctcaggg	atctaaagtg	aaggaggacc	1800

# -142 of 185-

agaaagaaaa	ggggttgcta	. catagagtag	, aagaagttgc	acttcatgcc	agtctacaac	1860
actgctgttt	tcctcagage	agagttgatg	atctaaatca	gagatcccca	acccccagtt	1920
catageetgt	taggaaccgg	gccacacag	aggaggtgag	caataggcaa	gcgagcatta	1980
ccacctgggg	ttcacctccc	gtcagatcag	tgatgtcatt	agatteteat	aggaccatga	2040
					gagactctaa	2100
taccassas	tatatasata	tattaastas	graggreete	cgcccccac	gagactctaa	
rgccggaaga	t-acceg	tectecatea	ccctgagatg	ggaacateta	gutgeaggaa	2160
aacaacctca	gggeteecat	tgattetata	ttacagtgag	ttgtatcatt	atttcattct	2220
atattacaat	gtaataataa	tagaaataaa	ggcacaatag	gccaggcgtg	gtggctcaca	2280
cctgtaatcc	cagcacttcg	ggaggccaag	gcaggcggat	cacgaggtca	ggagatcgag	2340
accatcctgg	ctaaaacggt	gaaaccccgt	ctactaaaaa	ttcaaaaaaa	aattagccgg	2400
gtgtggtggt	gggcacctgt	agtcccagct	actcgagagg	ctgaggcagg	agaatqqtqt	2460
gaacctggga	ggcagagctt	gaggtaagcc	gagatcacgc	cactgcactc	cagcctgggc	2520
gacagagcga	tactctqtct	caaaaaaaaa	aaaaaaaaa	aaagaaataa	agtgaacaat	2580
aaatgtaatg	togctgaatc	attccaaaac	aatcccccca	ccccaattca	cogaaaaatt	2640
ctcccacaaa	accagteest	ggtgccaaaa	aggttgggga	ccactaatct	aaataatcta	2700
atcttcattc	actageceee	2210221222	cttttttta	astagagge	atacaatttat	
taccoccacto	aatgttaaaa	aatyaataaa		aatacacggt	ccaccigi	2760
Lgeecagget	ggagtacggt	ggcacgacca	cagctcactg	tagecteaat	cacccaggcc	2820
ccagcgatcc	teccaectaa	acttcctgag	tagctgggac	tacaggcacg	caccaccatg.	2880
cccagctaat	ttttaaattt	tttatagaga	tgggggtctc	accatgttgc	ccagactggt	2940
ctcaaaccct	gggctcaagt	gatcctccct	caaactcctg	gactcaagtg	atcctccttc	3000
cttggcctcc	caaagtgctg	ggattacaag	catgagccac	tgtacccagc	tggataaaca	3060
ttttaagtcg	cactacagtc	atggacaatc	aggcttttca	acatgcagta	tggacagtga	3120
gtcccagggt	ctgcttttcc	atactgaaat	acatgtgata	ctaaggagaa	aggtactcac	3180
aaggatattt	aaaatgaaga	atatttaaaa	tgaggaaaaa	actotttctt	catgactttg	3240
ataaggctga	taaagaccat	ttctgtgatc	tcaggtgatt	cactcaadta	gratatttca	3300
gtaatcatta	tetagaacaa	cctgaatctt	aaccaaaata	ccatcatttt	ttaatactat	3360
tatgataggt	tratratato	accasactco	aaccaaaaca	ccacgacete	cacgagtttg.	
acttacaca	gatgatatg	ttttattaa	aatgtaggca	getaaatete	tacgagettg.	3420
acticcicga	gaguugauag		aaattaaaga	aatatatttt	ctgatacatg	3480
attggcatat	ttaaaaacta	cactgaaatg	ctgcaaaatg	atataaagaa	acattttcca	3540
gaatcaaatg	caatcaaaga	gtggattagg	aatctactca	ccattatcaa	ctaaatagaa	3600
acacttggac	tgggtgtggt	ggctcacatc	tgtaatctca	gcactttggg	aggccaaggc	· 3660
aggtggattg	cttgaggcca	ggagctcaag	accagcctga	gcaacatagc	aaaactctgt	3720
ctctacaaaa	aaaaaaaaa	attaaccagg	catggtggca	gatgcttgta	atcccagcta -	3780
ctctggaagc	tgaagtagga	ggactgcttg	agcccaggag	atcaagactg	cagtgagccg	3840
tggtcatgct	gcgccacagc	ctgagtgaca	gagagagacc	ctotctcaaa	aacaaaaaca	3900
aacaaaaaac	acttaacctt	cctatttttt	actattatta	ttattattta	tttgttttga	3960
gatggagtct	cactetotto	cccagactag	agtgcagtgg	catastatta	actractora	4020
agetetgeet	cccaaattca	coccattoto	ctgcctcagc	ctccccacta	actacaecta	4080
taggcgcccg	ccaccacaca	cooctacttt	tttgcatttt	tagtagaget	geegggaeea	4140
catatteacc	aggatgatgt	tastataata	acceptation	cagtagagat	cggcctccca.	
ageteagee	255222222	tanagagaga	accedegae	ccaccugect	eggeeceeca .	4200
aaguguuggg	ttacaggca	cgagecaeeg	cacceggeea	acctttctgt	tttttagttt	4260
gatatgettg	ctaactcage	agetgaaaga	atgctgaaag	tggccttcag	taaaaaaatt	4320
ccaccagaat	ctctacatec	acacccaacc	tgaatgcata	tccagattga	tcagttagag	4380
caaaaacact	catcatcatt	cctgatgacc	tctaattctg	gtttcggctt	tctatttcaa	4440
tggaaacaga	ataaggaaag	aaatggaagg	gctctggaaa	tttgtcctgg	gctatagata	4500
ctatcaaaga	tcaccaacaa	taagatctct	cctataaata	taaaacaagt	ataattaatt	4560
ttttaattat	ttttttctct	tcagaggatt	ttatttcaag	ataaaacata	acttctaccc	4620
atactattga	ttccaaaggt	tagaaaaagt	gtttttcctc	atcttatcct	tcaaagaggt	4680
cacagcaatg	caaacatcta	taaaatgcct	ctgcataatt	gtcagaagct	atagtccaga	4740
aatcattgaa	aatqcttttc	cattttaagc	ttaggtgagg	tatettagga	aacctctato	4800
acaacttact	ctatttattq	ggaggtaaac	tcccagactc	teceaggate	tectatatta	4860
atctcatttt	ttaggettee	taatcccttc	aagcacaatc	ccccagggcc	tocatetet	4920
ttctccacat	atcatcccc	aattoatto	gcttccagca	gaaaaagccc	cggaccccc	
accogcacac	cccttctcc	aacccacccg	attactagea	agetgaeaet	ccatgataca	4980
ageggeeteg	actorcoccy	gacyccagtc	cttgctgcgg	ctagetagga	rgaggggttt	5040
googgood	agracagger	cergegggtt	cccaagccgc	accaggrggc	ctcacaggct	5100
ggatgtcacc	actgeacact	gageteetgg	caggctgtac	caatttttta	attatttaat	5160
atttatttt	aaaattatgg	tgaatatttt	ggtattctgc	tctaaaatag	gcccataaat	5220
gcacagcaga	tatetettgg	aacccacagc	tttccactgg	aagaactaag	tatttttctt	5280
ttaaagatgc	tactaagtct	ctgaaaagtc	cagatectet	acctctttcc	atcccaáact	5340
aagacttgga	atttatgaga	gatctagcta	acagaaatcc	cagacacatc	attggttctt	5400
cccagagtgc	agtcctccta	aagaggctca	gccctaagca	ggcccctgca	ccaggagggt	5460
gggtctgaga	cccacatage	acttcccaag	gtgcatgctc	cagagaggca	ctgaaacagc	5520
tgagcacaaq	cctgcaagcc	tggagaactc	tcacagtcag	aacqqaqqq	acceaataaa	5580
				د د د د د د د		

# -143 of 185-

agagaaaago	gaacacagac	, aaatggatgo	caccaacaac	cagcaaagcc	5640
atgaaagcat	cagtgacgg	gccagaaccc	tcatccccaa	agactettea	5700
tgaaaaacaa	togctagaga	gtgaagttat	retretatet	. adadaddtaa	5760
ttatattctc	r actotoctaa	tatassetta	gatoatgeat	agagaggeaa	5820
cctattcaa	tateceatta	attaataaa	. cctaccigc	agactaaaag	
. cccgcccaaa	. accecatio	gitgetagag	acctaaaacc	aacagaacge	5880
gatgattatt	accaaaaaa	caaaagacag	caagcactgg	cgaggatgta	5940
aacttttgtg	cactgtttat	gagaatgtaa	. aatggagcag	r ctgctgtgga	6000
caggiteete	aaagagtaaa	accaagatgt	ggaaacaact	: aaatgcccat	6060
. aggggtagac	: aatatgtggt	atatacatac	catggagtac	: tattcagcct	6120
. aaaaggaaat	tctataacat	gcaacagcat	ggatgaatct	tgaggacatt	6180
. aataaggcag	r tcatagaaag	acaaatactg	cacgactcca	cttatatgag	6240
. tagacaaatt	catagaatca	aagagtacaa	tggaggttac	ctggagctgc	6300
. acgaggagtt	actaatcaac	gaacataacg	ttacaattaa	gtaagatgaa	6360
agatcagctg	tacaacactq	tacctagagt	caacaataat	gtattgtaca	6420
tgttaagggt	agattaacaa	atgtagtaga	tccacaaato	taattaaata	6480
agtaaaataa	aaaaagaata	tcaagcccag	gagttcgaga	ctagectogg	6540
aaaccctgtc	tetacagaaa	atacaaaaat	tagggaggg	taasaataas	6600
aactaaaata	ggaggcttgc	ttgaggggag	ragetagetg	ctacaataaa	6660
accactotac	treacrea	atgageeeag	gaggccaagg	cegeagegag	
gastatgasa	cocagoccag	acgacagage	aagacaccac	cececeaa	6720
gaatattaaa	cattttaaaa	gateagatae	gcaagaacaa	. caacaaaaa	6780
gageacegae	ceteatetag	tgggattett	ggtctaactg	aaaaacagac	6840
aaacaacgac	agcgacgcga	tcacagcaat	tacacaggta	teceetgggg	6900
aaaggaggaa	tgcctaactt	tcagaaaata	gagaaagcgt	caaacagttg	6960
tccaaaacta	gagagaactg	cacacaccaa	atcacagaaa	gaagaaaagc	7020
tctgggaccc	accggctatt	tttgatggct	gaacaccctg	ctgcaggaga	7080
ggaaagcatg	gtgggatgaa	acctcaaaca	gctttgcctg	cattgcttaa	7140
cttgattaac	tctagtcaat	ggggacaatt	caatcaaaqa	agaaagatgc	7200
attttagaat	gattttttat	ggcagtatgg	ggaatagatt	aaaagagagt	7260
gcaagaaact	tgttaagagg	caactgaaac	agtctagatg	ataaataata	7320
gtgactagaa	aaatcagaac	aggctgaatc	aacagatacc	tagatgaaaa	7380
tgatcaccag	ttgtatcttg	gagaggaagg	agttgtttcc	ttactttccc	7440
aatacggaag	gtttgccgtg	tqtattqqtt	atatactoot	gtgtagccaa	7500
ccatttagca	gcttaaaaca	caaaggctta	tctcccagtt	tetataaace	7560
gataggctta	actaactaat	tctggctcag	agtttctcaa	gaggttggaa	7620
agctggggtt	gcatcatctg	aaggctcaac	tagaaccaga	gagtccactt	7680
cactcacctq	cctgacaagg	cagtgctggt	tattaaceaa	agateteaat	7740
gtgagcctct	ctatagcatt	actagaacat	cctccccatc	taaceattaa	7800
catgagtgat	ctgagagaga	gaggaaggag	descenden	tottottoct	7860
ctaacactat	ggacctactc	ctaacactct	gaagecacag	ttattagatt	7920
ggaactaagc	tccacctctt	reactages	atatassa	atttataat	
atcatcacac	tataassata	gadacaagaa	gegeeaaaga	accigiggat	7980
acattcaaat	atcascaca	gatagggggt	ccaactaacy	cegaaceega	8040
tagaggaaga	taracasstt	Taggaacat	acccatagat	ggccacgacc	8100
cagaggaaga	teacagaacc	aaygaygaat	cgaaaggcaa	aagaagtgga	8160
tttaaataa	cyagocacya	aaggaacttt	aactattgag	ttagaggtca	8220
ccccggcgga	attetttt	aaagaaagga	accatataag	catgttttga	8280
gaataaatta	gragacaggg	agaggcaaaa	aacataaatg	acaggggaca	8340
grerrageag	aatcccttac	ccattgactt	ggggccaaga	gagggacact	8400
agggataagg	aaaataagaa	agaatgggtg	ctatttagtg	tggtcctgtc	8460
acgcataggt	aacaaactgt	gtgtgttagg	aatatagatg	tgacctcaca	8520
cacctcaaat	ccattttgtt	gttacctgta	ccttcctacc	ttctctttt	8580
gactgctgtt	ttgtcttcct	ggcctgttcc	aggtttcagc	attctggcat	8640
ctgttcccaa	acctctctag	agtccatgct	ccttccttaa	atagtgtttg	8700
gtatctaaga	agtgatgcct	tcagttaggc	ctgagaacct	cctctatgga	8760
agtgaccctq	acagacttgg	tatcttggag	atotcactoc	teccageeta	8820
gaatctcagc	ctgggcctct	agtagtatgg	ataaggcgtt	aaggtatctt	8880
tctqtcatat	tcctcaatqt	gggacagata	aaacagtggt	agtactaata	8940
agaactctgg	tttttaatct	agattette	atgtatgacc	tttcagaggt	9000
gttctaatac	aatottcaat	acaaatotao	ttccttttct	gttaggaggt	9060
tgaccaactg	tagatgaaca	ttaaactato	acaattcatc	gaaatgaata	9120
tacaatteer	ccattttagc	agtcactato	ataacettta	gaaacgaaca	9180
atacttttat	taaaacctac	catcttacts	gacacatast	ycacaaacyy attoaaacta	9240
ggagaaactt	cttaasaact	tttaataat	agracacyat	actgadactd	9300
tatttataaa	graactatte	Cacctcacac	adayiyaiya	ayiyalaala	
	Jugactatta	ggccaaac	account	ggttttt	9360
	atgaaaaacaa ttatattetaa ttatattetaa teetgactaat aacttttegacaa aacttttegacaa aacttttegacaa aaataaggaaat tagagggaat aagataaaggaat aagataaaggaa tagagaggaat aagataaaggaa tagagaggaat aagataaaggaa tagagaggaa tagaaaatgac aaactgagaa aaactgagaa caattgaaaa teegggacat gaacaatggaa teegggacaa gaacaatggaa tagagaaaat gaacaaatggaa tagagaaaat gaacaaatggaa aaactgggaaa teegggacaa teegggacaa aactaggaaa teegggacaa aactaggaaa teaagaaaact gaataaggaa aataaggaaa teaacaaaa teaagaaaact gaactaaaa aactaggaaaa teaacaaaa teaagaaaact gaactaaaaa caattgaaaaa caattgaaaaa teaagaaaaa teaacaaaaa aactaggaaaa caattgaaaaa caattgaaaaa caattagaaaa caattagaaaa caattagaaaa caattagaaaa caattagaaaa gaattaacaa aacattagaaaa cactagaaaag taactaaaaa gaaggaataagg taactacaaa gaattaccaaa gaattaccaaa gaattaccaaaa gaattaacaa gaattaacaa gaattaacaa gaattaacaa gaattaacaa gaattaacaa gaattaacaa gaattaacaa gaattaacaa gaattaacaa gaattaacaa gaattaacaaa gaattaacaaa gaattaacaaa gaattaacaaa gaattaacaaa gaattaacaaa gaattaacaaa gaattaacaaa gaattaacaaa gaattaacaaa gaattaacaaaa gaattaacaaaa gaattaacaaaa gaattaacaaaa gaattaacaaaa gaattaacaaaa gaattaacaaaa gaattaacaaaa gaattaacaaaa gaattaacaaaa gaattaacaaaa gaattaacaaaa gaattaacaaaa gaattaacaaaa gaattaacaaaa gaattaacaaaa gaattaacaaaa gaattaacaaaa gaattaacaaaa gaattaacaaaa gaattaacaaaa gaattaacaaaa gaattaacaaaa gaattaacaaaa gaattaacaaaa gaattaacaaaaa gaattaacaaaaa gaattaacaaaaa gaattaacaaaaaa gaattaacaaaaaaaaaa	tgaaaacaa tggctagaga tgatgacata tataccaa aagaggaaat tcaaaacaata aacaacaata aacaacaata aacaacaata aacaacaata aacaacaata aacaacaacaa aacaacaacaa aacaacaacaa aacaac	atgaaaacaa tggcagagg gccagaacca tggaagaacaa actettgta accetcataa gttgcagag gagaatgtaa accettttgtg cactgttaat gagaatgtaa accaaaaaat caaaagacag aggaggtagac aaaaaggaaaa tcataagacag tcatagaaaa accaagatgt aaaaaggaaaa tcataagacag tcatagaaaa accaagatgt aaaaaaggaaat tcataacaa gagacaaaaaat caaaaggagat taaaaaggaaat tcatagaaaa acaaaacatg tgttaaagag agtaaaaataa aaaacctgtc gaaaacatgac acaacacaa gagatacaaa aaaacaatgac gagatacaaa aaaacaatgac gagatataaaa aaacaatgac gagagattga aaaacaatgac gagagattga aaaacaatgac gagagattga aaaacaatgac gagagattga aaaacaatgac aggagattga aaaacaatgac aggagattga aaaacaatgac aggagattga aaaacaatgac aggagaatttttaaaa gagagaacat tggagaaacat tggagaaacat tggagaaacat tggagaaacat tggagaaacat tggagaaaca tgaaaacaaggagaaactgaaacaagagagaactgaaacaagagagag	typanaacaa tygotagaga gccagaacco tcatcoccaa tygotagaga tygaagttat gatcatgtat thatattota actotgctaa tatcoccatta gatgactatt accaaaaaat caagattacta caagagtaca aactittagaa cacaagagtaa aactittagaa caagagtaaa aactittagaa cataagagaa aatatgaga aatatgagagagagagagag	aggagaaagg gaacacagg aaatggatgg caccaacaac cagcaaagcc tgaacaacac tggacagacs tggaagatat ggaaacaca tggacacacacacacacacacacacacacacacacacaca

#### -144 of 185-

ttgaagttgt cacatttaat cottaataac coactatgag toaggtatto ttototocoo 9420 tttggacagt tggggaaatg ggggtcagag aggttaggta atttgctcag ggccacacaa 9480 cctgcatgta gaaaatctga gatttgtaca ggaacgtatc aaactctgaa gtccatgctt 9540 ctattttccc atgctgcctt tctaataaaa ggtaactaat gctactggat gctgcccca 9600 aagtgagtca ctttcacccc accetacttg attttctcca taaaactaat cacatcctga caacttattt attgctgatc tcccccacta gattataaac tcaataaaag caagatcctt 9660 9720 gtctgctgaa tatcagtacc taaaacgctg tctagcacag agcaagtaat taatatttgt 9780 tgaatgaaca aataaaggaa aaaaattcaa aggaagaaaa agccctaaaa cagatgttta 9840 cctaaacata cattttaaaa gaaagcatat aacaaattca ggacagaatt taaatttgat 9900 ttttaaaga aataaccaag tgctagctgg gcacagtggc tcacacctgt aatcctagca ctctgggagg ccgaggcagg cagatcactt gaggtcaaga gttcaagacc agcctggcca acatggtgaa acctgtctct actaaaaata cagaaattat ccaggcatgg tggcaggtcc 9960 10020 10080 ctgtaacccc agctactcag gaggctgagt caggagaatt gcttgaaccc aggaggcaga ggttgcagtg ggccaagatt gcaccactgc actccagcct gagtaacaaa gcaagactct 10140 10200 10260 aagaaagaaa gaaagaaaga aagaaagaaa gaaagaaaga aagaaagaaa gaaagaaaga 10320 aagaaagaaa aagaaagaaa gaaagaaaga accaagtgct tatttgggac ctactatgct 10380 atgtttttcc atgcacgcta ttttcagtaa agcagttagc aaacttgcaa gatcataaca 10440 acaaatatat gcttctataa ctctaaaatt gtgctttaag aagttcctct ttaccagctc atgtatgcat tagttttcta agagttacta gtaacttttt ccctggagaa tatccacagc 10500 10560 cagtttattt aaccaaagga ggatgettae taacatgaag ttatcaaatg tgageetaag 10620 ttgggccagt tcatgttaat atactccaga acaaaaacca tcctactgtc ctctgacaat 10680 tttacctgaa aattcatttt ccacattacc aaggagccag ggtaggagaa tatagaaaga 10740 ccacccaaga atccttactt ctttcagcaa aatcaattca aagtaggtaa ctaaacacat 10800 gccctaacaa tgaatagcag attgtgctca gaagaatgat ctacaacatc ttactgtgaa ggaactactg aaatattcca ataagacttc tctccaaaat gattttattg aatttgcatt 10860 10920 ttaaaaaata ttttaagoot aaattttaaa aggtttgata ttggtacatg aatagacaaa 10980 cagacatgga ctagaccaag aattaggttc aaacatatac aggaatttaa tatacgataa 11040 atctagtatt ccaaaggaac caacaaatgg tgttcagaca gcaggatagg catcaggaaa 11100 aacacagttg ggcaccctac cttactccta acaccaggag taactgaagg agcaccaaat atttattat tttaattata gttttaagt ctagggtacg tgtgcacaac atgcaggttt attacatagg tatacatgtg ccatgttggt gaggagcac aaatatttaa aagaaaaaaa ttggccaggg gcggtggctc acacctgtaa tcccagcact ttgggagagcc aaggtgggca gatcacctga ggtcgggagt tcgagaccag cccaaccac atggagaaac cccatctcta 11160 11220 11280 11340 11400 ctaaaaatac aaaattagcc aggcatggtg gcacatgcct gtaatcccag ctacttggga 11460 ggctgaggca ggagaatagc tttaatctgg gaggcacagg ttgcggtgag ctgagatatt gcactccagc ctgggcaaca agagcaaaac ttcaactcaa aaaaattaat aaataaataa 11520 11580 aaataaagaa agaaaagaaa aaaatgaaaa tagtataatt agcagaagaa aacaccgtag 11640 11700 11760 getaaataat catagetgaa tgaactggga aaacaaaact tgactcatat ccagacagag 11820 ttaattttcc tacacataaa gagtacctat ataaacccaa caaaaaaacc accactaacc 11880 caaaataaaa atgtgacagg taatgaacag gtagttcaca gagaatacaa atggctcttc ggcacataag atgctcagac tgacttttac ttatttattt tttgagagac agggtctcac 11940 12000 gatgttgccc aggttaggct caaactcctg ggctcaaatg atagtaccag gactacaggt gtgccccacc gcacctggct cctcaaccac ctgtattaac aggaaatgca aaataaaact 12060 12120 ttcaaatcta ttttacctat tagaatggca aaaatttgaa aaacttcaaa catcatcatg 12180 ttggtgagaa tgtgaggaga ctggcactct cattttttgc tgatagcata tatatactga 12240 tggcttctat ggaaagcaat ctggcagcgt ctatcaaatg tacaagtgca tatatccttt 12300 gacaaagcaa ttccactcta ggaatgtgtt ctatatggtt gtgcttcctg gggctgggaa 12360 ctgggagcta agggacaggg gcagaagata atcttcttt ccctccttcc ccgttaaaca 12420 tgttgaattt tatatactgt aatatattat ttttcacaaa agataatttt taagcgatat 12480 gtctgggaat tttttttt cttttctgag acagggtctc actctgtcat ccaggctgga atgccatggt atgatctcag ctgactgcag cctcgacctc ctgggttcaa gcaatcctcc cacctcagcc tcctgagtag ctgggactac aggcacgtgc catcatgcta atttttgtat 12540 12600 12660 atacagggtc tcactatgtt gcccaggcta atgtcaaact cctaggctca agcaatccac 12720 ccacctcagg ctccaaagtg ctgggattac aggcgtgagc caccgcgcct ggccctggga attcttacaa aagaaaaaat atctactctc cccttctatt aaagtcaaaa cagagaagga 12780 12840 aattcaacct ataatgaaag tagagaaggg cctcaaccct gagcaacaaa cacaaaggct atttctgaga caggaatttg ctgaacaaaa tcgagggaag atgacaagaa tcaagactca 12900 12960 cttetegget gggegeagtg geteacacet gtaateceag caetttggga ggeegaggeg 13020 gacagatcac gaggtcagga gattgagacc atactggcta acacagtgaa acccagtctc tactaaaaat acaaaaatt agccgggcgt ggtggcaggt gcctgtagtc ccagctactt 13080 13140

# -145 of 185-

gggaagctga	ggcaggagaa	tggcgtgaac	ccaggaagcg	gagettgeag	tgagccgaga	13200
tcacgccact	gcactccago	: ctgggtgaca	gagcaagact	ctgtctcaaa	aaaaaaaaa	13260
aagactcatt	tctctagato	: ttgagccgta	ttcaaattta	tctcagctta	gtgagaggtt	13320
aaagcaagga	. atatccttcc	: ctgtgggccc	tgctccttac	tgaaggaagg	taacggatga	13380
gtcaaggaca	. ccaatggaga	. aaagcactaa	caccattatc	tgatgaacat	tacgtgaaga	13440
agggtaagaa	. gtgaagtgga	. attgctgaag	, aagtcagtga	aagcggacat	tcatttgggg	13500
aaatggaata	. taggaaatco	: ataaaagtga	ttaaaaagat	gttagaggct	gaggcggggg	13560
gaccacaggg	tcaggagato	gagaccatco	: tggctaacac	ggtgaaaccc	catctctact	13620
aaaaatacaa	. aaaattagco	aggcgtggtg	gcaggcacct	gtagtcccaa	ctactcggga	13680
gactgaggca	ggagaatggo	atgaacctgg	gagacggagc	ttgcagtgag	ccgagatcac	13740
			gagactccat			13800
acgagagata	aagatccaac	agacacacaa	ctgctaattc	tgaacagaac	aaaacaaatg	13860
gcacaggaaa	agaaaattta	. agatataaca	ccggaaaact	ttcctgaaat	tgagtaactg	13920
aatctatagc	ttgaaagggt	ttagcatatg	ccaagaaaaa	tcagtagagt	ccaaccagca	13980
caagacacat	ctagcaaggo	tggtgattct	accaacacag	agaaagaagt	gggtgaccca	14040
taatgcggaa	aaaggcagac	catctgcagt	cttctccaga,	acactggagt	ctgaagacaa	14100
aagaatgctg	cctactgage	cagaagggag	agaaagtgac	ccaacacatc	tttaccaagt	14160
tagaatgtca	cgcattattt	aaaggctgca	aaagccatga	aagacatgaa	agaacacaag	14220
			tcatactcaa			14280
gtcctaatcc	agcccactga	aagttaaatg	tacttaatgt	gctcattaat	gggaacttca	14340
tagcttcaaa	tcagtctggt	cccatctacc	aacatctctc	gcccggcttt	cctgcaatag	14400
tcagcacctt	tecetectee	cagtcttgtc	ccctggagtc	tgctctcagc	atagcagagt	14460
gaccacatca	acacccaagt	cagagccctc	cagtgcgcac	tggtctacaa	agcccttccc	14520
acccccacc	ccacgtgccc	tccggatcct	tgtgacgtgt	ctcctgcata	ccctagcagc	14580
cctggcctcc	tcactgcccc	tcctgtacat	caggaaggcg	actccttgag	tcttggctct	14640
agacgactac	tccacctgca	gtgagttaac	tcccttacct	actctaggtc	attgctcaaa	14700
tgtcagcatc	tcaatggggc	cctccctgac	taccctattt	aaattctaca	tactcccctt	14760
gaccccatgg	acctcactca	ccctattcca	cttttattct	tacaatttag	cacttgttct	14820
cttctaacgt	attctaagac	ttactcattt	attacattgt	ttgccacccc	ctctagtaca	14880
taaactccag	aggggcaggg	atttctgtct	atttattcat	ttctttatcc	ctaggacata	14940
gaacagggca	tagttcagag	tattcaatgt	tatcaatgaa	tgaactagca	gtagtaccag	15000
ttccagttag	gcacagaatt	aaatctaaat	agaattaaat	ctcatggtct	gggttaacta	15060
cggatagaaa	actagatata	attttaagaa	gcctagaaag	aaaaaattaa	taatgtaaaa	15120
ataatattaa	atasaasaa	torogtogra	ctctgccagg	cactgtggct	caaatctgca	15180
accedageta	cccaggaggc	cgaggcggaa	ggatcacttg	agaccagagt	tcaagactca	15240
geetaggeaa	accetcacaa	aactgcccc	aaaaaaatta	aaacctaaac	cccaaaaaa	15300
ctatoctaat	agegeeacaa	tttttagaa	ttaaggtaca aggtataacc	ggaagtgtga	tttotopoet	15360
ccataaactc	adaaadataa	ccetetagaa	caattaacag	aaaayatttt	nanggangat	15420
acaacaaaat	agaaagacaa	ttactttcca	gttgaaaaca	agggggagga	ttattttaa	15480
tcacctcacc	tatasactaa	ccagcccca	aaaacactac	tastasasas	agtagaaaa	15540 15600
catcatctca	dataaadcad	gaaaaactgg	cacagtetea	aagaaaaaa	tataagaaaag	15660
cacctagcca	accetaceaa	gaaaaaccgc	agtaggagga	aaccacaac	acaagcaca	15720
taccaactta	gacattctgt	gcccgggccc	tgtccctgga	acgreecegag	catctcaaaac	15780
gcacctgtaa	tacccactaa	ttacaccac	catatgtgag	agggccacac	accecaaag	15780
gagagtataa	caagaacctt	atgtcatctg	agatgaggaa	tcctcaccc	tocaaattaa	15900
ccaactcttt	agaacaactg	gcaaaacata	aatatccaca	acttttgttt	cagtaattcc	15960
actcttagat	atcaatccaa	agtacatgag	acagcagata	cacacacaaa	atggtattta	16020
ctgcagcatt	gtttataata	gcaaaaaaca	agaaataatc	catatototo	aataggatac	16080
taggtacata	agggtatgta	cccatcattc	aaccatcaaa	aagagtgata	togatotoca	16140
cagatggaca	taaaaagctg	tatattacat	gaaaacaaac	tcaagcagca	gcaggatggg	16200
cttatgatag	tcagtatgag	ctaatttctc	gaaaaaaaa	tctagtgtgt	gcacagaaaa	16260
catctgaaag	aacagaaaca	aaactatcag	cagaatattg	agatgttta	ctaaqttqta	16320
tatctatact	gcttgtaatt	tttaccccaa	gcaagaatta	ctttttggaa	aaagaaaatt	16380
caggaaataa	agcatttctt	taaacttcat	gtttaaacaa	atogtoatog	aataaaagag	16440
ttcttattca	tcataaacac	acacagcaca	catgcacgca	tatacatasa	cacacccttt	16500
acttgataaa	taccatatta	aatatttao	tettteettt	taggttctat	cccttcactc	16560
aaaatgcggt	tataaataaa	tqtacttttc	atgtgccttc	tacctasacc	cactttaata	16620
taactttaca	gtcccattat	cattataqtc	tcaaagctag	acteageete	aaactaccct	16680
ttcatttgga	acccttatta	aaatgccaca	tacageteet	tcaaataaaa	acaaacccta	16740
ggacctgaca	ctaggcttcc	tttgttgcta	ctcataatgg	ccaagttctg	tocttataat	16800
acatcttctt	tcattttatt	gctacatatc	caagggtttt	atatotttt	cttattatat	16860
cttaattcaa	aacaccatca	cgctctttc	cagatgaaaa	taaqqaaaaq	aaattgagca	16920
			<del>-</del>		- <del>-</del>	

### -146 of 185-

actgactgac	ttaaaggtca	taaaactata	tagtagcaga	gtcagcaaaa	gaagaaacac	16980
acatetecca	agtagaggct	gaaaaccagt	accattcacc	tccaqqqtqa	gctatataca	17040
gattacaaag	tcaccttctc	taaatgttca	aactgaatcc	catacccata	ctttaccact	17100
acctcqtaaq	aacagcctca	gatcttgtta	tagccttttt	tttagcatgc	tgaagccaat	17160
		agagaaacaa				17220
		gagaaatgtt				17280
		agaaaaattc				17340
		caaatagtta				17400
taaatactot	gaatataaaa	attgaaaaga	tactctcctg	geteccaaga	aagtcagcca	17460
gatagaggag	acacaggcac	acaaatcact	gtcacatgaa	getetacete	cctaacttca	17520
		agaatacagt				17580
		tagaaaactc				17640
		ggaagcaggg				17700
qqactatqaa	atgaaaatgg	tgagtctggg	acateccate	ttgcccagaa	atcaaggaac	17760
toccaaaga	ttaacagagt	catgttaaat	ggacctaaga	gtgaaccaga	aggageteae	17820
tttaccccac	gtggaacaat	ttcaagaaaa	acatgacagt	aatgaattat	aaaacatgaa	17880
ttaaaataca	tattootact	aaaaagagaa	caaaaggatg	tagetttaga	taaagctctt	17940
cttcatqqaa	gaataccagc	taataaatgt	aaaggaaatg	agagaattag	aaaaattatc	18000
		ttcacctaga				18060
					attagataca	18120
		cttcctgtga				18180
ctccttqtqa	tataggaget	acacagcatc	gcccacacag	cttctcgcca	aaactgtttg	18240
aagctaatca	caaqqqaaqa	actggacagc	ttctgaccat	gagacgetee	accagacaac	18300
		aacttgcttg				18360
aaaacaaaac	taattattta	aaaacaaacg	aaaagcaagt	tatagactta	agetecaggg	18420
		cctgttcttc				18480
		gaaggttctg				18540
gccttgaggc	ccacagaaca	acccagtgat	gggttcactg	gatcttcttt	ttgcttcatt	18600
		gcagcaggca				18660
aagccccaaq	aaaaqcctqc	cctctctagc	caaaqqacca	qqaaqqaqac	agtctaatga	18720
gatggaacac	atttagacag	taactgccca	tttaccacca	ataactgage	agggagecta	18780
gacttccagt	cttqtqaqqa	cgtaccaagg	tacccaacac	ccccaccaaq	gctgagtaag	18840
		catggcagta				18900
tgtcagggga	acctggactt	ccactcccac	ccaggagtga	tgaggcctc	cctactagaa	18960
tcatgtcaga	ggaggcctag	tggagattca	gtgacttaac	cttttcccag	agataatgag	19020
gccacctttc	ctccctcttc	ccccatggtg	acaqtqaaaq	cactgtggca	agcagtaggc	19080
actectacce	ctcctagcca	gggaggtatc	agggaggcca	agtagggaac	cagaataccc	19140
acaaccaccc	agcagcaaca	ggggtccccc	accccattgg	gtgtcaatgg	aagcagagcg	19200
gaaagcctgg-	atatttaccc	ccatctagaa	gtaacaagct	gatgtccccc	ttcttctact	19260
acaatggtgt	tcaaaacagg	tttaaataag	gtctagagtc	tgataacgta	atacccaaat	19320
cgttgaagtt	ttcattgagg	atcatttata	ccaagagtca	ggaagatccc	aaactgaaag	19380
agagaaaaga	caattgacag	acactagcac	taagagagca	cagatattag	aactacctqa	19440
aaggatgtta	aagcacatat	cataagcctc	aacaggctgg	gcgcggtggc	tcacgcctgt	19500
aaccccagca	ctttgggagg	ccgaggcagg	tggatcacaa	gatcaggaga	tcgagaccat	19560
cctggctaac	acggtgaaac	cccgtctcta	ctaaaaatac	aaaaaaaat	agcaaggcat	19620
ggtggtgggc	acctgtagtc	ccagctactc	gggagcctga	ggcaggagaa	tggcatgaac	19680
ctgggaagag	gagcagtgag	ccgagatcgc	accaccgcac	tccagcctgg	gcaacagagc	19740
aagacttcgt	cccaaaaaaa	aaaaaaaaa	aaaaaaagc	ctcaacaaac	aactacaaac	19800
gtgcttgaaa	caaatgaaaa	aaaaatcttg	gcaaagaaat	aaaagatata	tattttggcc	19860
aggtgcagtg	gctcacagcc	tgtaatccct	gcactttggg	aggctgaggc	aggcggatca	19920
cctgaggtca	ggagtttgag	accagcctga	ccaacatgga	gaaaccccgt	ctctactaaa	19980
aatacaaaat	tagccagtca	tggtggcaca	tqcctqtaat	cctagctact	caggaggccg	20040
aggcaggaga	atcgcttgaa	ctcaggaggt	ggaggttgcg	gtgagccgag	atcccgccat	20100
tgcacattgc	actccagcct	gggcaacaag	agcaaaactc	catctcaaaa	aaatagatac	20160
atattttaat	ggaaatttta	gaattgaaaa	atacagtaac	caaattgaat	ggaaagacaa	20220
catagaatgg	agggggcaga	caaaataatc	agtgaacttc	aacaqaaaat	aatagaaatt	20280
acccaatatg	aagaacagaa	agaaaataga	ctggccaaaa	aataaagaag	aaaaaagagg	20340
agcagcagga	ggaatgatgg	aaaaagagaa	aggaaggaag	qaaqqqaagg	agggagggaa	20400
ggagtgaggg	agaaagtctc	aaagacctct	gagactaaaa	taaaagatct	aacacttgtc	20460
atcagggtcc	aggaaagaga	caaagatggc	acagetggaa	acqtattcaa	aaaataataq	20520
ctgaaaactt	cccaaatttg	gcaagagaca	taaacctata	gattcgaaat	gctgaacccc	20580
aaataaaaag	cccaataaaa	tccacaccaa	aatacatcat	agtcaaactt	ctgaaaagac	20640
gaaaagagaa	aacgtcttga	aagcagtgag	tgaaacaaca	cttcatgtat	aagggaaaaa	20700

#### -147 of 185-

caattcaagt aacagatttc ttacagaaat taaggaagcc agaaggaaat gacacaatgg 20760 ttttcaagtg ctgaaagaaa agaagtgtca acacaaaatt ctagattcag taaaaatatc 20820 cttcaagaat caatgggaaa tcaagacagt ctcagataaa gcaaaataag agaatatgtt 20880 gccagcagat ctcccctaaa ggaatggcaa aaggaagatc atgcaacaga ccaaaaaatq 20940 atgaaagaag gaatccagaa acatcaagaa gaaagaaata acatagtaag caaaaataca tgtaattaca ataaaatttc tatctcctct taagacttct aaattatatt gatggttgaa 21000 21060 gcaaaaatta taaccctgtc tgaagtgctt ctactaaatg tatgcagaga attataaatg 21120 gggaaagtat aggtttetat acetcattga agtggtaaaa tgacaacact gtgaaaagtt 21180 acatacacac acacacgtaa gtatatataa atatatgtgt gtatatgtgt gtgtatatat 21240 atatatacat ataatgtaat acagcaacca ctaacaacac tatacaaaga gataataacc 21300 aaaaacaatt tagataaatt gaaatggaat totaaaaaat attcaaatac totacaggaa 21360 gacaagacaa aaagagaaaa aaagaggagg acaaactaaa ttttttaaaa acataaataa 21420 aatggtagac ttaagcccta acttatcaat aattacataa atgtaaatga tctaattata 21480 tcaattaaaa gacagagata gcagagttaa tttaaaaaca tagctataag aaacctgctt tgggctgagt gcagtgactc acacttgtaa tcccagcact tcgggaggcc aaggcgggtg 21540 21600 gatcacctga ggtcaggagt tccagaccag cctggacaac atggtaatac cccatctcta 21660 ctaaaaatac aaaaaatta gccaggcatg gtggcacacg cctgtagtcc caactactca ggaggctgcg acacaagaac tgcttgaacc cgggcagcag aggtagcagt gggccaagat 21720 21780 tgcgccactc cagcctgaac gacagagtga gactccacct cagttgaaaa acaaaaaaga 21840 aacctgcttt aaatatacca acatatgttg gttgaaatta aaagaataaa atatatcatg aaaacattaa tcaaaagaaa ggagtggcta tattaataac ataaaataga cttcagagaa 21900 21960 aagaaaattt caagagacag gaataaaagg atcaagaaaa gatcctgaaa gaaaagcagg 22020 caaatcaatc attetgettg gagattcaac accetetett aacaactgat agaacaacta 22080 gacaaaaaaa tcagcatgga gttgagaaga acttaacacc actgaacaac aggatctaat 22140 agacatttac ggaacactct acccaacaat agcaaaataa acattctttt caagtattca 22200 ctgaacatat cettagacce taccetggge cataaaacaa ageteactag tgattgeega 22260aggettggat ggacagtgga agagetgeat ggggagggag aaggtgacag ttaaagagtg 22320 taggatttct ttttgggata atgaaaatgt tccaaaattg attgtggtga tgttggcgca actctacaaa tataaaaaag gccattgaat tgtacgtttt aagtgggtga aacatatggt 22380 22440 atgtggatta tatctaacgc tttttaaaaa cttaacacat ttcaaagaat agaagtcata 22500 cagagtgtgc tctactggaa tcaaactaga aagaggtaac tggaggataa cgagaaaagc ctcaaaatac ttgaaaactg gacagcacat ttctaaaatc atccgtggt caaagatatt cattctgat attcatttt attgttaat gtatttttaa aaatttctta agggaaataa 22560 22620 22680 actgactaaa aatgaatatg gctgggtgcg gtggctcacg cctgtgatcc cagcactttg ggaggccgag gctggtggat cacaagatca ggagttcgag accagcctgg ccaagatggt 22740 22800 gaaaccccgt ctcaactaaa aaactacaaa aagtagccaa gcgcagtggc gggagcctgt 22860 ggtcccagct acttgggagg ctgaggtagg agaatcgctt gaacacaggc agcagaggtt 22920 gcagtgagcc aagattgtgc cactgcacgc cagcctgggc gacagagact gcctcaaaaa 22980 aaaaaaaaa aaaaagaata tcaaaatttg tgggacatag ttaaagcaat gctgagaggg 23040 aaatttataa cactaaatgt ttacattaga aaagagaaaa agtttcaaat caatagtctc 23100 cactcccatc tcaagaacac agaagatgaa gagcaaaata aacccaaagc aagcaaaaga 23160 aagaaaatat aaaaataaat cagtaaaatt gaaaacagaa acacaataaa gaaaatcagt 23220 gaaacaaagt actgattctt cgaaagatta ataaaattga caaacctcta gcaaggctaa 23280 caaacaaaaa agaaagaaga cacggattac cagttattag aatgaaagca taattagaaa 23340 caactetaca cattataaat ttgacaatgt agatgaaatg gactaattac tgaaaaaaca caaattacca caactcaccc aatatgaaat agataattgg gatagcctga taactactga 23400 23460 gaaaattgaa tttgtaattt taacactctt aaaacagaaa cattaaactt aatattttat 23520 aaatattaga taaggtaatt ataccettee ttaacaaata aaaacgacaa attattttge 23580 agctaaagag atgtatgtac tgtgaaaaat atcttcagaa aaatagaact ttgtttgaag 23640 aataaggatt taaaaaatgt ttttaactct caagaagcaa atatctgggc ccagatggtt 23700 tcactgaaga attctaccaa atgtttaatg aagaattacc accaactcta catagcatct ttgagaaaac tgaagagaag ggaacatctc ccagttcatt ttatgaagtg ggtgttactc 23760 23820 tgatactaga actgtataag gacagctact cttgacacac tgcctatggg tagctctgct 23880 ctgcaggaac agtcagaaaa aaaaaaaaa gaagcactgg acaagggcag tataaaaaaa gaaaactggg ccaggtgcag tggctcacac ctgtaatctc agcactttgg gaggctgacg 23940 24000 ctggtggatc acctgaggtc aggagtttga gactagcctg gccaacatgg taaaaccctg 24060 tetetactaa aatacaaaaa ttagecagge agggtggtgg ggaaaataaa aaggaaaaaa aaacaaaaaat aaactgcaga ccaatateet teatgagtat agacacaaaa eteettaaac 24120 24180 tccttaacaa aatattagca agtagaagca atatataaaa ataattatac accatgatca 24240 agtgggactt attccagaaa cgcaagtctg gttcaacatt tgaaaacaag gtaacccact atatgaacgt actaaagagg aaaactacat aatcacatca atcaatgcag aaaaaagcat 24300 24360 ttgccaaaat ccaatatcca ttcatgatac tctaataaga aaaataagaa taaaggggaa 24420 attecttgae ttgataaage ttacaaaaga ctacaaaage ttacagetaa cetatactta 24480

## -148 of 185-

atggtgaaaa actaaatgct ttcccctacg atcaggaaca aagcaaggat gttcactctc 24540 attgetetta tttaacatag ceetgaagtt etaacttgtg caaaacgata agaaagggaa 24600 atgaaagacc tgcagattgg caaagaagaa ataaaactgt tcctgtttgc agatgacatg 24660 attgtctcat agaaaatgta aagcaactag gggtaggggg gcagtggaga cacgctggtc 24720 aaaggatacc aaatttcagt taggaggagt aagttcaaga tacctattgc acaacatggt 24780 aactatactt aatatattgt attettgaaa atactaaaag agtgggtgtt aagcgttete 24840 accacaaaaa tgataactat gtgaagtaat gcatacgtta attagcacaa cgtatattac 24900 tccaaaacat catgttgtac atgataaata cacacaattt tatctgtcag tttaaaaaca 24960 catgattttg gccaggcaca gtggctcata cctgtaatcc cagcatttta ggaggctgag gcgagcagaa aacttgaggt cgggagtttg agaccagaat ggtcaacata gtgaaatccc 25020 25080 gtetecaeta ataatacaaa aattageagg atgtggtgge gtgeacetgt agacecaget 25140 25200 25260 aaagcatgac ttttcttaaa tgcaaagcag ccaagcgcag tggctcatgc ctgtaatccc 25320 accactttgg gaggccgagg caggcagatc acaaggtcag gagtttgaga ccagcctgac caacatggtg aaaccccatc tctactaaaa aatatataaa ttagccaggc atgtgtagtc 25380 25440 teagetaete aggaggetga ggcaggagaa teaettgaae eeggaggeag aggttgeagt 25500 gttgagccac cgcactccag cctgggtgag agaacgagac tccgtctcaa aaaaaaaaag 25560 caaaataacc taattttaaa aacactaaaa ctactaagtg aattcagtaa gtctttagga 25620 · ttcaggatat atgatgaaca tacaaaaatc aattgagctg gacaaaggag gattgtttta 25680 ggtcagtagt ttgaggctgt aatgcacaat gattgtgcct gtgaatagct gctgtgctcc 25740 agoctgagoa goataatgag accacatoto tatttaaaaa aaaaaaaatt gtatototat 25800 gtactagcaa taagcacatg ggtactaaaa ttaaaaacat aataaatact gtttttaatt gcctgaaaaa aatgaaatac ttacatataa atctaacaaa atgtgcagga cttgtgtgct 25860 25920 gaaaactaca aaacgctgat aaaagaaatc aaagaagact taaatagcgt gaaatatacc 25980 atgettatag gttggaaaac ttaatatagt aaagatgeca attttateca aattattaca 26040 caggataaca ttattactac caaaatccca gaaaaatttt acatagatat agacaagatc 26100 atacaaaaat gtatacggaa atatgcaaag gaactagagt agctaaaaca aatttgaaaa agaaaaataa agtgggaaga atcagtctat ccagtttcaa gacttacata gctacagtaa tcaagactgt gatattgaca gagggacagc tatagatcaa tgcaaccaaa tagagaacta 26160 26220 26280 agaaagaagc acacacaaat atgcccaaat gatttctgac aaaggtgtta aaacacttca 26340 acgggggaag atatgtctct cattaaaggg tgtagagtca ttgcacatct ataggcaaaa agatgaacct gaacctcaca ccctacagaa aaattaactc aaaatgactc aaggactaaa 26400· 26460 cataagatat acatctataa aacatttaga aaaaggccac gcacggtggc tcacgctcgt 26520 aatcccagca ctttgggagg ccaaggcagg tggatcacct aaggtcagga gtttgagaccagccggatca acatggagaa gccccatctc tactaaaaat acaaaattag ctggacgtgg 26580 26640 tggcacatgc ctgtaatccc agctacttgg gaggctgagg catgagaatc gcttgaaccc ggggggcaga ggttgcggtg agccaagatc acaccattgc actccagcct gggcaacaag 26700 26760 agcaaaactc caactcaaaa aaaaaaaaaa aaaggaaaaa tagaaaatct ttgggatgta 26820 aggogaggta aagaattott acacttgatg ccaaactaag atctataagg ccagtcgtgg 26880 tggctcatgc ctgtaattcc agcactttgg tcaactagat gaaaggtata tgggaattca 26940 ctgtattatt ctttcaactt ttctgtaggt ttgacatttt tttagtaaaa aattggggga 27000 aagacetgae geagtggete acacetgtaa teecageaet ttgggaggee ggggeaggtg 27060 gatcacacgg tcaggagttc gagaccagcc tggccaacat ggtgaaaccc cgtctctacc 27120 aaaaatataa aaaattagcc gggtgtcatg gtgcatgcct gtaatcccag ctactgagga ggctgaggca ggagaatcac ttgaacctgg gaggtggaag ttgcagtgag ccgagattgt gccactgcac tccagccttg ggtgacagag cgagactccg tctcaaaaga aaaaaaaaa aaagaatatc aaacgcttac tttagaaact atttaaaagga gccagaattt aattgtatta 27180 27240 27300 27360 gtatttagag caatttttat gctccatggc attgttaaat agagcaacca gctaacaatt agtggagttc aacagctgtt aaatttgcta actgtttagg aagagagccc tatcaatatc 27420 27480 actgtcattt gaggctgaca ataagcacac ccaaagctgt acctccttga ggagcaacat 27540 aaggggttta accetgttag ggtgttaatg gtttggatat ggtttgtttg geeceacega gteteatgtt gaaatttgtt ecceagtaet ggaggtgggg cettattgga aggtgtetga 27600 27660 gtcatggggg tggcatatcc ctcctgaatg gtttggtgcc attcttgcag gaatgagtga 27720 gttettaete ttagtteeca caacaactgg ttattaaaaa cageetggea ettteececa tetetegett ceteteteac catgtgatet caetggttee cetteeett atgeaatgag 27780 27840 tggaagcagc ctgaagccct cgccagaagc agatagtgat gccatgcttc ttgtacagcc 27900 tacaaaacca tgagcccaat aaaccttttt tctttataaa ttatccagcc tcaggtattc 27960 ctttatagca agacaaatga accaagacag ggggaaatca acttcattaa aataatctat 28020 gcagtcacta aacaaataag aacaagaggc tccagaagtg ggaagccaat acccagagtt 28080 cctacaatac agtatctgaa aagtccagtt tccaaccaaa aaatatatat atacaggccg 28140 gacatggtag cttatgtctg taatcccagc actttgggat gctgaggcgg gcagatcacc 28200 ctaggtcagg agttcgagac cagcctggcc aatatggcaa aaccccgtct ctactaaaaa 28260

# -149 of 185-

tacaaaaatt	. agccaggcat	: ggtggtggat	gcctgtaatc	ccagctactc	gggaggctga	28320
ggcagggaat	cacttgaacc	: caggaggcag	aggttgcagt	gagccgagat	cacgccactg	28380
aactccagco	: tgggcaacaa	ı agtgagacto	: cacctcaaaa	aaaaaaaaa	tatacatata	28440
tatatgtgtg	, tgtgtgtgtg	, tgcgcgcgtg	, tgtgtatata	cacatacaca	tatatacata	28500
tatacagaca	cacatatata	ı tatgaagcat	gaaaagaaac	aaggaagtat	gaaccatact	28560
ttctgtggtt	atgataggat	: ggggtatcac	gggggaagta	gacaagggaa	actgcaagtg	28,620
agagcaaaca	. gttatcagat	: ttaacagaaa	. aagactttgg	agtaaccatt	ataaatatgt	28680
ccacagaatt	aaagaaaago	: gtgattaaaa	. aaggaaagga	aagtatcata	acaatattac	28740
tccaaataga	. gaatatcaat	: aaaggcatag	aaattataaa	atataataca	atggaaattc	28800
cggagttgaa	. aggtagaata	actaaaattt	aaaattcact	agagaaggtt	caacactata	28860
tttgaactgg	cagaagaaaa	. atttagtgag	acaaatatac	ttcaatagac	attattcaaa	28920
tgaaaaataa	aaagaaaaaa	. gaatgaagaa	. aaataaacag	aatctcagca	aaatgtggca	28980
caccattaat	cacattaaca	. tatgcatact	gagagtaccg	gaagcagatg	agaaagagga	29040
agaaaaaata	. ttcaaatgat	ggccagtaac	ttcctagatt	tttgttttaa	agcaataacc.	29100
tatacaatca	agaaactcaa	. tgaattccaa	gtaggataaa	tacaaaaaga	accacaaaca	29160
gatacaccat	ggtaaaaatg	ctgtaagtca	aaaacagaga	aaatattgaa	agcagctaga	29220
ggaaaactta	taagagaacc	tcacttacaa	aagaacatca	cttataaaag	aaccacaata	29280
	ttgacctctc					29340
gaaaaaaaat	aaagattcct	atatacgaca	aagctgtctt	tcaaaaatat	acatccaaaa	29400
ggattgaaac	cagggtcttg	aagagttatt	tgtacatcca	tgttcatagc	agcattattc	29460
	aaaggtagaa					29520
tatgtataca	caatggaatt	tattcagtat	taaaaaggaa	tgaaattctg	acacatgcta	29580
caacatggct	aaaccttgag	aacactatgc	taagtgaaat	aagccagcca	caaaaggaca	29640
aataccatat	tacttcactt	gtatgaaata	cctagggtag	tcaaattcag	agatagaaag	29700
taaaacagtg	gttgccaagg	gctgagggag	ggagtaacgt	ggagttattg	ttgaatgggt	29760
acagaatttc	agttttgcaa	gataaaaaga	gttctggaga	cagatggtgg	tgagggtggt	29820
acaacaatac	aaatatactt	tatactactg	aacagtatac	ttaaaaatga	ttaacatggt	29880
gaaaccccgt	ctctactaaa	aatacaaaaa	aattagctgg	gtgtggtggc	gggcacctgt	29940
aatcccagct	acttgggagg	ctgaggcagc	agaattgctt	gaaaccagaa	ggcggaggtt	30000
gcagtgagct	gagattgcgc	caccgcactc	tageetggge	aataagagca	aaactccgtc	30060
tcaaaaaata	aaaaataaaa	aaaatttaaa	aatgattaag	caggaggcca	ggcacggtgg	30120
ctcacaccta	taatgccagc	actttgggag	gccgaggcag	gcgatcactt	gagaccagga	30180
gtttgagacc	agcctggcca	acatggcaaa	accetgtete	tgctaaaaat	acaaaaatta	30240
gccaggcatg	gtggcatata	cttataatcc	cagctactgg	tgagactgag	acacgagaat	30300
tgettgaaee	caggaggcag	agattgcagt	gagtcgagat	cgcgccactg	aattccagcc	30360
Lgggcgacag	agcaagattc	tgtetegaaa	aaacaaaaac	aaaaacaaaa	agcaaaacca	30420
gggtgatgatt	aagcaggaaa	ttttannan	gccgaggagg	agaaagatgt	gcaggaccaa	30480
ggeteatgag	agcacaaaac	ccccaaaaa	acgettaatg	attaaaatgg	taaattttat	30540
argrarder	ccacaaaaaa	aagggccggg	gggcaggaaa	tgaaggtgaa	ataaagacat	30600
cccagagaaa	caaaagtaga	gaatttgttg	ccttagaaga	aacaccacag	gaagttette	30660
aggittgaaaa	caagtgaccc	cagagggtaa	cetgaattet	cacagaaaat	tgaagcatag	30720
anatoattta	tattctgtaa	ccatgacact	ttotototo	acttttteet	ttettetetg	30780
adatgattta	aaaagcaatt	guataaaata	tracatataa	ageetattgt	tgaacctata	30840
casacatatt	aaatatactt	graararact	cycaaacaac	rgeacaaaag	agagttggaa	30900
taaaaataaa	actaggetaa attttaaaaa	agadactact	acagatagta	aagtaatata	acagggaact	30960
ctaatattaa	tagacataat	accidadaac	Cacaaaaaa	acaataatat	ggttgggttt	31020
ataggaataa	cattttccta	tctaactac	attaattat	gaagaagaca	tatattctgg	31080
taagttaaga	caceceggea	apaccetaga	tactasasac	tasatasast	aaatacagta	31140 31200
aaaaaataaa	taaaataatt	aaaatottto	tattactttc	ctcacacac	adatacagta	31260
taccacaaat	tgagtggctt	aacacaactt	aaatatattt	totagggcac	aycaacaaac	31320
aacacctgca	atcaaggtga	atacacaaccc	atactcccta	tanagarat	ccggaggeta	31320
cctcccttat	ctcttccagc	ttccagtggt	teteretare	catacatact	aggaaagaat	
tagctatatc	attcctagca	accadagage	agrant	anagegee	certiggerig	31440
atgazatgaz	aaggagaaaa	atcagaaaga	agaaaacaac	aaayactaty	gcaaaaaaa	31500
aagatcaacc	aagttaacaa	accttttaac	tagactgada	aaaaaguua	geteetegaa	31560
ttactace	cagaaataaa	accultaac	ttagactyaca	aaaaygaggt	aagactcaaa	31620
ccaccagaac	tgtgccaaca	asttacasa	cttactaatya	gygartagaa	aagaacacta	31680
acatcaact	ccaaaattta	ctcaacaaca	aagacyda	argyacaggt	ccctaggaca	31740
daacaacta	aattgacaac	caagaaya	togagasaa-	Lugaatgage	Lataacaagg	31800
ttcactotca	aattctttca	aacttataa	tataaattaa	adaluccagg	cccagaagat	31860 31920
ctccaaaaaa	aagaacagat	ctctatttac	accccatac~	atatttaa	not get asset	31920
gaactactaa	gacactatga	taactcataa	aggogatacg	accettagaa	aaccccaagg	32040
Jacobacoda	Jucaccacya	caucigataa	acaageecag	caayyctyca	yyacayaaaa	32040

#### -150 of 185-

ccaatataca aaaatctatt atatttctat acacttgcag tgaacaaccc aaaaatgaga 32100 ttaagaaaat aattcaattt acaataacat caaaaagaat aaaaacactc aaaaataaat 32160 ttattcaagt aagtgcaaaa cttatactct agaagctaca aaacactgtt aaaagaaatt 32220 aaaggtttac ataaatgaaa aactatccca tgttcatgga tcaaaagact tattactggc 32280 aatgetetee aaattgatet ataaatteaa caaaateett ateaaaatee cagatgagge 32340 tgggggtggc ggttcatgcc tgtaatccca gcactttggg aggctgaggc acgcagatta 32400 cctgaggteg ggagetegag ateageetga ecaacatgga gaaaccetat etettetaaa 32460 aatacaaaat tagtcaggcg tggtggcaca tgcctataat cccagctact cgggaagctg 32520 aggcaggaga atcgcttgaa cccaggaggc agaggttgca gtgagccaag atcgtgccat 32580 32640 ccagatgact tcactgttga aattgaaaag attattctaa aattcacatg gaattgcaag 32700 accttgagaa tagccaaaac aaacttgaaa aacacgaaca aaatatagga tgactcactt 32760 gccaattgca aatgttacga cacagcaaca gtaatcaaga ctgtgtggta ctggcaaaag 32820 acacatacat acatacatat caatggaata taattgagag tacagaaaca agcctaaaca tctatggtaa gtgcttttct attttttct tttttttt ctttttttgta gagatagaat 32880 32940 ctcaccatgt tgcccagget ggtcttcaac ttctgggetc aagcaatect eccactgtgg 33000 cctcccaaag tgctgggata actggcatga gccaccacat ccagcccaga tgattttcaa 33060 aaaagtcaac aagaccattc ttttcaacaa ataggtctgg gatgatcaga tagtcacatg 33120 aaaaaaaaaa tgaagttgga ccctccatca cactaaagtg ctgcgattat aggcatcagc 33180 caccacatcc agcccaaatg attttcaaaa aggtcaacaa gaccattctt ttcaacaaat 33240 aggtctggga taatcagata gtcacatgaa aaaaaaaatg aagttggacc ctccatcaca 33300 ccatatgcaa aaattaattc aaaaatgaat tgatgactta aacgtaagag ttacgactgt 33360 aaaactotta gaaggaaaca tacgggtaaa tottaaagac gttaggtttg acaaagaatt 33420 cttagacatg acaccaaaag catgaccaac taaggtaaaa tagggtaaat tgtacctacc 33480 aaaatgaaaa acctttgtgc tggaaaggac accatcaaga aatggaaagc caaaatagcc 33540 aaggcaatat taagcaaaaa gaacaaagct ggaggcatca tactacctga cttcaaagca 33600 acagtaacca aaacagcatg gtactagtag aaaaacagac acatagacca atggaacaga 33660 ataaagaacc caaaaataaa tccacatatt tatagtcaac tgatttttga caatgacacc 33720 ccttcaataa atgatactag gaaaactgga tatcgatatg cagaagaata aaactagacc 33780 cctatctctc accatataga aaaatcaact cagactgaat taaagacttg aatgtaagac 33840 ccaaaactat aaaactactg gtagaaaaca taaggaaaaa cgcttcagga cattggtcca 33900 ggcaaagate ttatggetaa aaceteaaaa acacaggeaa caaaaacaaa aatggaaaaa 33960 tagcacttta ttaaactaaa aagctcctgc acagcaaagg aaacaacaga atgaaaagac 34020 aacctgtaga atgggagaaa atatttgcaa actatccatc catcaaggga ctagtatcca 34080 gaacacacaa gtgactaaaa caactcaaca gcaaaaaagc aaataatctg gtttttatat 34140 gggcaaaaga totgaataaa cattotoaaa ggaagacata caaatgtoac tatcattotg 34200 ccagtaccac actgtcttga ttacttgtta gtgtataaat ttttaaattg ggaagtgtga 34260 gtcatcctac actitgttct tgtttttcaa gtttgttttg gctattctgg gagccttgca 34320 agtataaaat agccaacaag tatgaaaaaa tgctcaccat cactaatcat cagagaaata 34380 aaaatcaaga ccactatgag atatcctctc actccagtta gaatggctac tatcaaaaag 34440 acaaaatata atggatgctg gcaaagattt ggagaaaggg gaactcctat acactgtggg tagggatgca aattggtaat ggccattatg gaaaataata ctgaggtttt tcaaaaaact gaaaatagaa ctaccatatg atccagcaac cctactactg ggtatttatc caaaggaaag 34500 34560 34620 aagtcagtat actgaagaaa tatatgcact ctcatgttaa ttgcaacact gttcacaaca 34680 gccaagacag ggaataaatc taaatgtgca tcaacagatg aatggataaa gaaaatgtgg 34740 catatacact caatagaata ctattcagcc attaaagaag aatgaaatcc tgtcatccca 34800 gcaacatgga tgaacctgga ggacattata tttaatgaaa taagtaaagc acaaaaagat 34860 aaacagtaca tgttctcact cagacatggg tgctaaaaag aaaatggggt cacagaatta gaaggggagg cttgggaaaa gttaatggat aaaaatttac agctatgtaa gaagaataag 34920 34980 ttttagtgtt ctatagaact gtagggcgag tatagttacc aataacttat tgtacatgtt caaaaaagcta gaagagattt tggatgttcc cagcacaaag gaatgataaa tgtttgtgat gatggatatc ctaattaccc tgattcaatc attacacatt gcatacatgt atcaaattat 35040 35100 35160 cactetgtae etcataaata tgtataatta ttaegteaac aaaaaaagga aaaaaaagaa 35220 35280 35340 cccaattcaa aaatgggtaa aagccttgaa tatacactta tctaaagact atatacaatt 35400 ggccaataaa gacacgaaaa gatgctcaac atcactagtc atcagggaaa tataaatcaa 35460 aaccacaatg tagaatgtag acaccacttc atatgcacta ggatggctag aataaaaagg 35520 taataacaaa tgttggtaag gatgtgaaaa aatcagaaac ctcattcgct gctgttggga atgtaaagtg atgcagccac tttggaaaac agtctggcag ctcctcaaat tattaaatac 35580 35640 agagttaccg tatgacccag gaatatteet cetgggteta taaccaaaaa aatgaaaaca 35700 tatatccaca taaaaacttg tacatgggca tttatagcaa cattattcat aacagcaaag 35760 gtggtaagaa cccatatgcc catcatctga tgaacaggta aataacatgc ggtattatcc 35820

# -151 of 185-

atacactaga	atattatctg	cccatacaag	gagtgacate	cagetacato	ctacaaggat	35880
					cagattatga	35940
ttccatgcat	cogaaatgac	cagaataggg	aaatctatac	anacanaaan	tagattagtg	36000
attaaataa	actadagaa	cagataataa	actactatas	agacagaaag	ggaacaaagt	36060
3003330333	geegggagg	aggtagtac	ttattttt	cagaactact	gagactagga	
atatasasta	ggggagecca	aacacagaaa	tabbbabas	cacageteeg	gagactagga	36120
					caaggetetg	36180
		ctggcaggtg				36240
ttttctctgt	gtgtgcccat	gtccaaattt	tgattggctc	attctgggtc	atggccaatt	36300
gctatgcaca	. aagtgaagto	: tacttccaaa	agaagggaag	agggaacact	gactaggeta	36360
aacttatagt	cattttaatg	tccgcttttc	ctatgagatt	gtgaacacac	agaagtaggg	36420
tttttatcta	cattgtgcaa	. agtttaataa	gaaaaataga	attcaagaga	agcagttcaa	36480
tagcaggaat	ttaatatqqq	aactaattac	aaggtttagg	gcaggactaa	aaagccagtt	36540
gggatggtga	gccaacccag	agattagcaa	cagtgggacc	ccatctacct	accacccato	36600
aagctggaag	gataaaggag	gggctattat	cagagtccac	aagccagtgt	cagagteett	36660
aactagaact	gggaccaccc	tagagacact	atacaaaaca	aageeagege	addagaaaaa	36720
ctaacttctc	ccttcctcc	acctttcaat	gtgcaaagca	tacttactac	taggaaaaacc	
tagacecee	gagtgagaag	gaagagtgaa	anatanata	tatatata	tagecatact	36780
rggccagaga	cagigacaag	gaacactgca	aaatgaagtt	Lgtaggaatc	accecece	36840
gagacagaga	aatatggaag	ggtagaaaat	gaaccagagg	ataaagagaa	aaaaccctga	36900
gtactatett	acttatett	graceceag	tgcctaatct	gtctctcaaa	aaaggaaagc	36960
aattgagaga	aactgaaaac	tccaattgaa	atgaaagaat	ggagaattac	tggactagaa	37020
gagaagagaa	aaatttattc	cgcatagagt	aaacaagaat	ggattcacaa	aggacgtgat	37080
gaatgaaaag	ctataatcag	caaagatttg	ccagagaaat	taaaaagtgg	taaactcaqc	37140
cacgctgtac	aacctgaagg	cacaatgcat	gaaaacgttt	caaqaaatqa	caaqatttqa	37200
agtcaaattc	taagtgcttt	tccagaatct	ctcaagacga	ttatatagct	accccatttt	37260
attaaataaa	atggaaactt	actaaacttt	ccccttgtat	taaactaaca	tatotoctaa	37320
tagcaaacga	ttctggaatt	cctagagtaa	aatatatttc	gtcaaagtgt	attoctcttt	37380
		tttgctattt				37440
ttaatatata	atttacatet	acgggcttat	aggatacteg	ttttaattt	tttaaaattt	37500
ccaaccccca	ttaastatt	actgctctct	attagggtta	cittaacttt	gradaareag	37560
tagagarger	anathanat	tttttttta	ttttttttttt	catttgaata	geataggagt	37620
Laccaccate	aaccitggat	tatttaagca	ttcacgattc	cacgtgtgga	ttttttattc	37680
agagtette	ttgtcattcc	tgctatcagc	acagaaccca	atctcagctt	tccagctata	37740
ccccacccc	acggaatttg	cagatgaagt	tcaaaaggac	ctttgcatta	tectgeeteg	37800
cectetteee	ccttcattta	gacatcacct	tettetagaa	cgtcttacct	gacatgccct	37860
gctcccaacc	cctgctgccc	aattgtgtgc	tetecegtgt	cctggcctgc	catcctcttt	37920
agraartgcc	tgctccctca	tetgteteee	cacccagaca	ttaagctgaa	tagactggat	37980
ttgtgtcttg	tccatcacta	taatctcagc	acctagtacc	tagtaggtac	ttaccatgta	38040
ttcattagca	aaatgttatg	tataaccttg	caccttaaaa	acaagagaag	gaagacaaaa	38100
ttaagtctta	agactatggt	ttagaacatg	gatcagaaac	tacagtctgc	agcccaaatc	38160
cagaccaaat	gaagagacca	tgttcattta	catacaacct	atagcagctt	tcacactaca	38220 -
ggagcagagc	taagtagttc	caagggaaca	cacggccctg	caaaqcctaa	aatatttact	38280.
ctatagctct	tcacagaaaa	agttttcaga	tccctcgttt	agaactcttg	ttcatatgca	38340
atttcactaa	accatagttt	tttgggtttg	tttqqttttt	tttqqcaaaa	aggaatgage	38400
cgatccagaa	aaggttgaaa	agaatgaatc	attactacta	aaagaatgtg	cacacagtcc	38460
gtcagtattc	tgctgccatg	ctgacaccca	tccaatagtg	tcatgagatg	cagcagctac	38520
tactgtgttc	tcaatqccqa	gtccacccac	tccataacca	tgtccaagca	atcttgggaa	38580
catcatcacc	atacttattt	atccttaagg	tattgcctca	catacagcag	taactaatca	38640
taaagtcaaa	tgacactagt	ggccaggagg	tcaagagaat	gagtgaggag	aggtaggtag	38700
gcagcccagg	ccctaccaac	agcaggagct	cacccctcac	taratataaa	caccactcaa	38760
atacttttca	ccctttcaag	agagactagg	aatotoottag	tttatatata	atatetteat	38820
tactaaatot	tatanagaa	agagaccagg	aattiggatt	cciacgigaa	terreres	
		catgtcaaaa				38880
tgactattca	ggccacagaa	ttaaggattc	ttatccaaca	cagataccaa	ccaaaaagct	38940
gacgtataac	atattaggag	aaactatgtg	cactgtcgaa	acatcaacaa	ggggctaatg	39000
tctaaaatag	tctatattgg	attccagttg	aaacatgggg	aaaggacatg	aacaggcaac	39060
ttatgtcaat	ggaaactcaa	aaagataaca	agcatatata	aaagcattct	caaattcagt	39120
agtaaacaga	cagatgcaaa	taaaaagagg	gaaactgctg	ccgggcacag	tggctcacac	39180
ctgtaatccc	agcactttgg	gaggccgagg	cagacagate	atgaagtcag	gagatcgaga	39240
ccatcctggc	taacatggtg	aaaccccgtc	tctactgaaa	acacaaaaaa	ttagccaggc	39300
gtagtggtgg	gcaccagtag	tcccagctac	tcaggaggtt	gaggcaggag	aatggcatqa	39360
acccaggagg	cggagattgc	agtgagccga	gaccatqcca	ctqcactcca	gcctgggcga	39420
ctgagtgaaa	ctccatctca	aaaaatataa	taataattat	aattataata	ataataaata	39480
gtaaataaat	aaaaagagaq	agactgctaa	agtctagaaa	gttgaatgat	gccaagcqca	39540
tgcaaagatc	agggccttqq	gatggccggg	tgcagtggct	cacacctata	atcccaccac	39600
_						

# -152 of 185-

						20000
				caagaccatc		39660
cagtgaaacc	cggtctctac	taaaagtaca	aaaaaatata	tatatatata	tatattatta	39720
tattatatat	atatatatca	gageettggg	aatccttgtg	tgctgctggg	gaaggtagtg	39780
				tattaagtat		39840
gogodgocac	t-attact		cacceggeea		aggeacaeae	
				aattctcaca		39900
aggagacatg	tacgaggctc	attcagcatt	actgggagtg	ggaatcaacc	tgggtgtcca	39960
tctacaggag	acqaqatqqa	caaaatqtqq	tggatattaa	gaccagaatc	accaaqtaac	40020
				aggctagaac		40080
				cgtgaccctt		40140
ggtttgaact	gcctgtgtcc	acttacatgt	ggattttctt	ccacttctgc	tacccccaag	40200
acaqcaaqac	caacccctct	tetteeteet	cccctcaqc	ctactcaaca	tqaaqatqac	40260
·aaggatgaag	acttttatga	taatccaatt	ccaaggaact	aatgaaaagt	atattttctc	40320
ttaattataa	*******	atataaatta		202544445	22222222	:40380
				agaatatggt		
				tgggtaaggc		40440
				atacacagat		40500
gcaggcaatc	agttcccctg	accccctcat	tattcacaga	tcaactgtat	atacacaaaa	40560
					gagtgggata:	40620
						40680
				caaaacaaca		
catgggccag	tgatgataaa	gggctaagaa	tgagaatata	attaattcaa	ttcctcacac	40740
ctgaggtcta	aaaccaagga	aagggagggc	caggcgtgga	ggctcacgcc	tgtaatccca	40800
gcactttggg	aggetgagge	gggcggatca	caagattagg	agtttgagat	cadectddec	.40860
aacacagtga	aagcccatct	ctacaaaaaa	tacaacaatt	acccaggtgt	ggtggcacat	40920
aacacagega	aagtooktot	gaggetgagg	anacaagaacc	2000033030	3363364646	40980
gootgrager	agetactety	gaggetgagg	caggagaacc	acttgaaccc	aggaggegga	
ggttgcaggg	agccgagatc	acaccattge	actccagcct	gggtgacaga	gtaagactct	41040
gtctcaaaaa	aataaaaaaa	ataaaaaaac	agagaaaggg	aggaaactag	atccaggctg	41100
				atctaagccc		41160
				tacaccatct		41220
				ttatatcacc		41280
				gaagaaaagg		41340
cttccttcta	gtggttcttt	ccgaaaacat	taataggcac	cagctctatg	catgtcaccc	41400
tqcaqqqaqa	catggggtat	ataactatga	cttactqttc	attcctcaag	qaattcccaa	41460
				ccaataaaac		41520
22002222	22222222	actcatcaaa	gagatatas	gcagagctga	tagggattta	41580
aagccagtga	caaagaagcc	agugaugaaa	ggccccgcga	geagageega	racheses	
				tccgtgggaa		41640
				tctgtatatg		41700
gaccatgtgt	ggattttta	ttcagctctt	tcgtgtcatt	cctgctatca	gcacagaacc	41760
				ctcatggaat		41820
agttcaaaag	gateettgee	ttttcaaaat	aattttgaat	ggttgagtag	tecetetata	41880
				catgctatgg		41940
catcaggaaa	tgttctccac	tcagtttcac	cttaatacaa	atgtgttctc	tetteagaga	42000
aggcaaaaaa	attcatgacc	atctgactgg	gagaagtcat	ttctaggtaa	agtgtccatc	42060
tttttctgag	gaacacagga	ggaaaatctt	acagaaaaga	gttaacacag	caggectaag	42120
actocttttt	2222422242	2212221222	taaataaata	aataaataaa	taaataaata	42180
	tt	thetetetet	caaacaaca	t	-tt	
aataaatgaa	tgatagggtc	ttelgtattg	gccaggctag	tctcaaattc	erggerreaa	42240
gagatcctcc	caccttggtc	tcccacagtg	ttgggattat	agacatgagc	cattgtgctt	42300
ggcccaagac	tgttattctt	aaaaagtctc	ataaaaaqca	tggttaatcc	ttqqctqqca	42360
				ctggaaagag		42420
				tcttcaggta		42480
testatata	terrenon	ccacgecgaa		t	9090994409	
					cctgggtgtt.	42540
gggtctctag	tgagtttccc	tggtagacag	catttcacat	gcgttgtcac	agctccttcc	42600
tcggggagtt	aagcacatac	atcctgtgtg	actgcactgg	gagaggatgc	ttggaagett	42660
				ctttgctgat		42720
				atgctgagtc		42780
2000000000	eteresetes	tactgacgag	agcacaccac	acgetgagee	atasasasas	
				gaaataaatt		42840
				tttgggaggc		42900
ggaccagtta	agcccaaaag	ttcaaagtta	cagtgaccta	tgactgcgcc	aatgcactct	42960
aacctgggag	acagagcaag	accetatece	caaaacaata	aactaaacac	atactteter	43020
				ttttaaaaca		43080
				gtctaggaaa		43140
gcaaaaagta	ctcagaacca	gattacctga	gcaaaccata	gcccaataca	agcttgggag	43200
gaggctgtta	tgcagaagga	aatggtaaca	ggtttccagg	aacagacttg	taacagcaga	43260
tagaacagca	gaggtagaac	ctgacaaqqt	gattacctoo	ggaactgcag	tctgaatgac	43320
caggactgtt	ggaccottcc	cctcacatoo	aatacacacc	ccactcagca	gcacaccaca	43380
-55500	55					-5500

### -153 of 185-

gctcttcaac aatcacagga ggcacgctac gcctagtaag acaggaaaaa aggaattctc 43440 aaacttegaa gatgaacaca taaagaatea eeaagttttt atteagtatg atgaaacagg 43500 gacactgaat caacagaaca caaacccaag caaagataat tactagagca catagaagaa 43560 attattagat attcttggga agacctaagg ggacattata aagagcaagc agttggtatg 43620 tgacgatctt tgtgatatac caagaaataa aaacacagga tgaagaccag atagagaata 43680 atgctactat ttgtgcaaaa aaggagaaat ggagaatctg attcatattt gcttgtattt 43740 gcatgaagaa actttggaag gtacataagt aactaacaac aatggttacc tacttgtaag 43800 gegagagaag taagaggaca ggaatggtgg gaacacettt tgtgteegga attggtgggt 43860 tettggtetg aettggagaa tgaageegtg gaeeetegeg gtgagegtaa eagttettaa aggeggtgtg tetggagttt gtteettetg atgtttggat gtgtteggag tttetteett 43920 43980 ctggtgggtt cgtagtctcg ctgactcagg agtgaagctg cagaccttcg cggcgagtgt tacagctctt aagggggcgc atctagagtt gttcgttcct cctggtgagt tcgtggtctc 44040 44100 gctagettca ggagtgaage tgcagacett egaggtgtgt gttgcagete atatagacag 44160 tgcagaccca aagagtgagc agtaataaga acgcattcca aacatcaaaa ggacaaacct 44220 tcagcagcgc ggaatgcgac cgcagcacgt taccactctt ggctcgggca gcctgctttt 44280 attetettat etggecacac ceatateetg etgattggte cattttacag agageegact 44340 gctccatttt acagagaacc gattggtcca tttttcagag agctgattgg tccattttga cagagtgctg attggtgcgt ttacaatccc tgagctagac acagggtgct gactggtgta 44400 44460 tttacaatcc cttagctaga cataaaggtt ctcaagtccc caccagactc aggagcccag 44520 ctggetteae ceagtggate eggeateagt gecacaggtg gagetgeetg ceagteege gecetgege egeateete ageeetetgg tggtegatgg gaetgggeg egtggageag ggggtggtge tgteagggag getegggeeg cacaggagee eaggaggtgg gggtggetea 44580 44640 44700 ggcatggcgg gccgcaggtc atgagcgctg ccccgcaggg aggcagctaa ggcccagcga gaaatcgggc acagcagctg ctggcccagg tgctaagccc ctcactgcct ggggccgttg 44760 44820 gggccggctg gccggccgct cccagtgcgg ggcccgccaa gcccacgccc accgggaact cacgctggcc cgcaagcacc gcgtacagcc ccggttcccg cccgcgcctc tccctcaca 44880 44940 cetecetgea aagetgaggg agetggetee ageettggee ageecagaaa ggggeteeca 45000 cagtgcagcg gtgggctgaa gggctcctca agcgcggcca gagtgggcac taaggctgag 45060 gaggcaccga gagcgagcga ggactgccag cacgctgtca cetetcaett teatitatge ettttaata cagtetggtt ttgaacaetg attatettae etatttttt tttttttt 45120 45180 tgagatggag tegetetetg tegeceagae tggagtgeag tggtgeeate etggeteaet geaageteeg cetecegggt teacaceatt etectgeete aaceteetga gtagetggga 45240 45300 ctacaggcaa tcgccaccac gcccagctaa ttttttattt tattttttt ttagtagaag 45360 cggagtttca ccatgttagc cagatggtct caatctcctg acctcgtgat ccatccgcct 45420 cggcctccca aagtgctggg attacagacg tgagccactg cgccctgcct atcttaccta 45480 tttcaaaagt taaactttaa gaagtagaaa cccgtggcca ggcgtggtgg ctcacgcctg 45540 taaccccagc actttgggag gccgaggcgg gcggatcacg aggtcaggag atcgagatca tcctggttaa cacagtgaaa ccccgtcgct actaaaaata caaaaaatta gccgggcgtg 45600 45660 gtggtgggca ccggcagtcc tcgctactgg ggaggctgag gcaggagaat ggcgtgaacc tgggaggcag agcttgcagt gagccgagat agtgccattg ccttccagcc tgggcgacag 45720 45780 agcgagactc cacctcaaaa aaaaaaaaa aaaatagaga cccggaaagt taaaaatatg 45840 ataatcaata tttaaaaaca ctcaagagat gggctaaaga gttgacggaa caaatctaaa tattagattg gtgacctgca aaaccagccc aaggaacatc ccagaatgca gcccataaag 45900 45960 ataaagagag catttccgct gggcacagtg gtatggcagg ggaattgcct gagtccaaga 46020 gttgcaggtc acattgaacc acaccattgc actccaggcc tgggcaacac agcaatactc 46080 tgtctcaaaa aaaaaaaaaa ttaaattaaa aaagacagaa tatttgagag aaaaaaatgc 46140 46200 ttatttcaag aaacatgaaa gataaatcaa gatattctaa ttcccaagta agaataattc cagaagcaga aaatagaata gaggcaagga aacactcaaa acttctccag tgccatagaa atgtgtatta atctttagaa tgaaacggac taccaaatgc tgagcaggaa gaacaaaaga 46260 46320 gatecactet taagecagtg tggtgcccaa gegeagtgge teatgeetgt aateceagea 46380 ctttgggagg ccgaggcagg tggatcacct gaggtcagga gtttgagatc agtcaggcca acatggtgaa accetgtctg tactaaaaat acaaacatta gctgggtatg gtggtgcaca 46440 46500 tetgtaatee caactaettg ggaggetaag geaggagaat caettgaaac caggaggtgg aggttgtagt gageegagat catgecacae teccageetg ggtgaeagag caagatteea 46560' 46620 tctcaaaaaa aaaatccact cctagacaaa taatagttaa attttagaac accaaggaga 46680 aagaaaaaaa attgtaaagc ttcagagaaa ataaacatta actacaaaga aacgagagtc 46740 agacgcgtgc acttetteet agataceage agataaagea atateteeaa aatteagaag 46800 gttttaacgt agaatcctat acccagtcaa gaatattcac atggaaaagt gaaataaaaa 46860 acattgttta aacatgcaag ggttcagaaa gtttaccatt cacagaatcc ctgaaaacaa 46920 aaccaaataa tcacttaagg actcattaag aaaacaaatg aaataaaagc accaatgatg agtaaataat cagaaaaatt tacagtttac ctaaataact gtttatgcat aatgtatgaa 46980 47040 aacccaaaaa tttaatatgg gacagaatta aaatcatgat aagattottt tttgctttac 47100 tcatggagag ttcacataaa cagattatct tttaatagca agagaaaaaa atgtttagat 47160

# -154 of 185-

atgtgtgaaa	aactaagggt	accaaaacag	tgcaaattca	tttatcatca	ggaaaatcca	47220
aattaaaacc	acagtatcca	. ccagaataac	taaaaggtaa	aagacagaaa	ttaccaagag	47280
ttggcaagaa	. tgtggagcaa	. ccacatatac	ttctggggta	aataagttgg	tgcaaccggt	47340
				tgcacagact		47400
agttccactc	ccagatacac	actcaacaga	aatgcacaca	ctcactcaac	aaaagacgtg	47460
tactagagtg	ttcatgtact	tactattcat	aatagtccaa	aaatgcaaac	aaccaactgc	47520
caatcaaagt	caaatgtata	tctatattag	ggatatatac	aatggcatat	acacagcaat	47580
gagaatgaaa	. tgaaccagct	cggcacagtg	gttcatgcct	gtaatctcag	cactttgggc	47640
gggtaaggca	ggcagatcac	ttgaggtcag	aaatttgaga	ctagcctggc	caacacggtt	47700
aaaacctgtc	cccactaaaa	acacaaaat	tagccgggca	tagiggtigc	aggcctgtaa	47760
ttccagctac	tcgggaggct	gggttgggag	aatcgtttga	acccgaaagc	cggaggtcgc	47820
agtgagcgga	gatcgtgcca	ctgcactcca	gcctggacga	tagagcaaga	ctccgtctca	47880
				atccgcaaaa		47940
					acacccataa	
				tagcaaggat		48060
cgaaactete	acgeattget	ggcgagaaca	caaaatggtt	cagcctctgc	ggaaaacact	48120
argergggre	accaaaaaa	caaaaacaya	agtactactt	gatccaacaa	ttetaettet	48180
gggtatatat	tatteataat	gaaagcaggg	terrigaagag	atatttgtac	acceatgate	48240
atggcagcat	ggaaaatgtg	agctatgatg	tggaaccaac	ataaatatcc	natananata	48300
ararggaraa	torgranted	tagaagatag	rcaarggaar	attaattagc	aataaaaatg	48360
ataagaaattt	tataaaaaga	cacacacacy	atgaaccttg	agggcattac atattagata	attaataana	48420
ataagccagc	tacaaaaaga	catacaccac	acgaggcacc	tggtggttgc	anagagataa	48480
				ttctggagat		. 48540 48600
acaatotoca	cacacttaac	actorogeac	totaaactta	aaagtagtaa	atggtaaaaa	48660
taaaaataat	aaataataaa	ttttatgtta	ttttaccaca	atatttatta	acggcaaaaa	48720
attaactaat	taaacaaaat	ccacccataa	actaataata	agagtaacaa	ttaaagacaaga	48780
cacagaaaat	tgaaaatcag	tgactagaaa	aagatattcc	atataaatgc	taacaaaaaa	48840
caagtacagc	aatataaaga	gaatgaacaa	aaaaaaaatt	aaataagatg	actcatttat	48900
tcccaaaagg	tacaattcac	caagaagata	caagaattgt	gaacctttaa	gcacataaaa	48960
cagcttcaaa	aatacaacat	ttaaagaaaa	atatatatta	aacatagaaa	tagtacaaaa	49020
				tccatatcaa		49080
				accatcaata		49140
taatatagaa	ctgtataccc	aatatactaa	gagttcaggg	aacagtcgtg	actgacagtg	49200
gactgcaaat	taatctgttc	ttaatctttg	tttttctttc	agcactgtgg	cagaatagag	49260
				tataaaaaaa		49320
actctgaaat	caatagaaga	cacatggtga	aaccaaaatt	ctagaataca	gggagaataa	49380
aggcattttc	agatattaca	aaaacagaaa	attgatcatt	gctgaagtaa	tttctaaaga	49440
atgtacttga	gggagaagaa	aaatgttcca	aagaaaagta	tctgtgatac	aagaaggaat	49500
ggaaagtgaa	gaaatġgtaa	acaggtagat	aaagctaata	aatgttgacc	tagaaaataa	49560
				taaaaataca		49620
aatgtgaggt	aagtggaatg	aaagaattag	aagtccttgc	cttgttcaca	ggactgatta	49680
aataaatgag	ccaggttttc	cattcaaaca	gttaaaactt	gaacaaaata	aactcaaatt	49740
				ataaaaaatc		49800
accaacaaac	cctggttaat	aaaagctggt	tctttgaaag	gattaataaa	ataatcatta	49860
				aagtactgta		49920
aacatacaga	tacatacaga	targraagag	tetgtttet	tacaccagaa	tactatatac	49980
aacattatge	ttagcatatat	caacticaa	taatgttaat	gattttctag	gaaaacagaa	50040
adtattaaat	ctacttigaa	gaaacagaaa	aactgagaaa	aataaatgat	catgaaaaaa	50100
acgaaaaggt	aactaaatac	coatattaac	tgeetaaaea	acaccagcag	cageceagge	50160
agreeyeage	gazagettta	caaacttgag	ggaacagata	attcttctat	tccagagcat	50220
agaaaatgat	ggaaagetee	actatataca	cagagaggae	agcctgatcc	ttgttatgaa	50280
catagataaa	tastatasa	actatatgee	taatttaa	accaaaaccc attagcccag	taaataagat	50340
aaagaaaatc	taggagaac	accecaaaay	atattaaaaa	ttttaagacg	gguutagag	50400 50460
tgatcatatc	aatocatoct	acacacact	atttoccc	aaaacccaac	addatetata	50520
gactttttaa	actettagta	attagggate	aacacaaaata	tacttaatgt	accoaccett	50520
actoggtgaa	gatacagagg	gaatgeteee	taaaaccaac	cccaagacaa	arattertat	50640
ttaacctcaa	tagtcaacac	tacagcaaga	gtaatctatg	gaagacaagg	aaaaaaantaa	50700
aaacatgaga	gacatctgtt	gtttaacaga	caataagato	acctacttgg	aadaddcaaa	50760
cgaatcaacc	qaaaaactat	taaaactgag	acaggettta	gtatggaggc	tcagcttcag	50820
ctgtagtttg	ggctaccaaa	ttcaactcoc	ttacttaaaa	agttaatcct	gcaaagctaa	50880
tttctqttqa	ggtattagga	ttgacaagce	tatactecte	cctcctcccc	catcttcaac	50940

# -155 of 185-

actgaaataa	cacggtgttt	ggaactggat	aacagaatct	tccaaaaaca	aaaattgtcc	51000
tgaagggctg	acttgtgccc	ttactcaaaa	aacactttat	ctgctgcctg	cagctcctac	51060
agttgctggt	ggataagcct	gccaaccagc	tcggcgtaat	tcttcctgca	gagggcaagg	51120
	tcacaggaaa					51180
cgtgctggca	aatggagctc	cagcaaaata	agatattcag	agtcaaactt	ccttaggaaa	51240
aaaaaaaaa	aaaagcaagc	acataacact	aatttccttg	catgggcact	ggggaaggag	51300
	ccgcacgccc					51360
	ccttccaggt					51420
	tcccctgtca					51480
qcqaaqqqct	teteggteet	ctgcaccacg	cagcaccccc	aaggcacaac	agggaggtg	51540
	ccgagaccca					51600
ggcgagggct	ggggtcgcct	ccagggccgc	agctgtcggg	agccacctgg	ctctcagtcc	51660
	cgacaaccct					51720
	ggtcccaccg					51780
	gacacgcgac					51840
	gcagtcccgt					51900
	gaccacgcgg					51960
	tcaccggccc					52020
	actgatgctc					52080
	gcgagcgcga					52140
	gtcctccttc					52200
tctcatctcc	ctatctgctc	atcctctqqt	cgcacataat	caatatttaa	gcgtcccaag	52260
	accccatttc					52320
	cagcctcatc					52380
	tttcctgcac					52440
	agtgattctg					52500
	aaggagcccg					52560
	gcccccccgc					52620
	aagtcggcaa					52680
	gggtgcctca					52740
	aagaccttaa					52800
cttgagggcg	tgaagctcaa	atgaggagga	aggaaaggat	ccagggagaa	taaccaaccc	52860
	tggcgcccag					52920
cggtgttgcc	cctcctcgcc	gccccgcgta	catttgggga	ggtctggaga	catttttggt	52980
	cgggagttgc					53040
catcctacct	gaaggacagg	actgccccac	aaggaagaat	gatccggccc	caaataagaa	53100
	ggtcagcaac					53160
aagtggggtg	aagttttggt	ttggtagagg	aaacttgaag	acattttcac	tggaaaggaa	53220
	ggagggagat					53280
catattgaag	taatgagtcc	tagttataat	aaattcctaa	taaaaaccca	gtttatccct	53340
gcaataaact	tgtcttttt	ttttaaatat	actgcttgat	tctgtttgct	aatatttat	53400
ttacaggctt	tgcattgata	tgcaaaaatg	agatgggcaa	taattttctt	tttgaatgtc	53460
taatgttgtt	tggtttcaga	atcaatgtta	tgctcacatc	ataaaaaatt	tggaaccgag	53520
gcaggaggag	tgcttgaggc	cagaagttcg	agaccagtct	aggaaacaca	gtgagacccc	53580
	caaaaaaaa					53640
tctgaacaat	ttaaggagca	ttaaaattat	ctattctttg	aggtttgatc	atttcccagt	53700
taaaaatgtt	cctcccagcc	tgatgctttc	tttggggagg	gtaaatcttt	taaggctaga [.]	53760
aaagtttctt	ctgtggcaat	tttattattt	acattttaaa	aattattcta	gagttaattt	53820
	tgtatttctt					53880
tgcataaagt	tgaggaaagt	agtcttttgt	gaatctttta	acttctccca	aatatcttat	53940
tttgtgtatt	tttgcttctt	tattttgtta	acttttaaaa	gtgtatttt	ttttcaaaga	54000
	aggtttatgt					54060
tatttttct	cctttatttt	ttagacgtat	tttgatctaa	cgtaatcgga	agaaggtaaa	54120
ttagaatctt	ttgttactat	tgtgtttta	tttctcctta	tttctctgaa	gtcctgcttt	54180
ataaatagta	ccatgttatt	tgtgcataaa	tattcatttg	tcttatattc	ttgggaattt	54240
tcccacttca	tcataaaatg	accttccttq	tctcatttaa	totottcaaa	ctttqccctq	54300
aatttaactt	tgtctgatat	tttaccatcc	tgctgaattt	tgtttgttac	cccaaacaac	54360
ctttgctgtt	ttcgtctttt	ctgaaccctt	tattttaggt	aatcccttga	attagagcac	54420
taagttttgc	tttgtgatta	aatctgaaaa	tctttatctt	gccatagatg	agttgagccc	54480
tattcatgtg	acagctatat	tatgctgttt	catagccctt	ttggtccttt	tttcactctt	54540
gcattgcata	ttttgtgttt	attgtgtttt	gtgtttcttc	tgataatttg	gaaggtttgt	54600
atttttattc	agggagttgc	cttataatca	tactccgcaa	tacacatcgt	cctcagtttc	54660
ttcagactgt	ctgttaactc	cctattctga	ataaaaatga	cattgtaatt	tccctcttt	54720

# -156 of 185-

ttctttaccc	cttttcttct	cctcacctaa	tgtaaatgat	tttatccttc	tttagtattt	54780
gcttttttaa	ttaactacat	ttataaatat	ctttatcact	tgatttttaa	atcagctttg	54840
aatgagatat	ttggattcct	agatataaaa	gatgttaatt	ataccatttc	cacgttagta	54900
ggtttataaa	atcatacatt	ctgctgtgta	accataatcc	cacgtttgtt	ttagttccac	54960
tcctacagtt	aaaagattca	gaagtattat	taacagttat	tttgccatag	ttttttcccc	55020
aacccatttt	gtggtaagtt	atgatcctgc	tttagtttct	taagaataat	ttatagagca	55080
			cactttggga			55140
cttgaagcca	gcagttcaag	accaccctga	gcaacatagt	gagaccttgt	ctctacaaaa	55200
			tgtgcctata			55260
tgaggcaaga	ggattgctag	agcccagaag	tttgaggctg	cagtgacctc	tgattgtgcc	55320
actgcacccc	agtctgggca	agaaagtgag	aacctatctc	tttaaaataa	caataataac	55380
ttatgaaaat	tatattccct	gagtttttca	tgtttaaaaa	tatttgttgc	ctttatcctg	55440
taaaagtttg	agtataaatt	cttgggttat	actttattta	ttgaagaatg	tataagtatt	55500
gtcttctaga	attgagtgtt	gctgtaatga	aaccagaagt	cagcctggtt	tatttttcct	55560
cagaaatgag	gtaattgccg	gccggacacc	gtggctcatg	cctgtaatcc	caacactttg	55620
ggaggccgag	acaggtggat	cacgaggtca	ggagattgag	accatcctgg	ctaacatggt	55680
gaaaccccgg	ctctactaaa	agtacaaaaa	gttagctggg	catggtggtg	gacgcctgta	55740
atcccagcta	cccgggaggc	tgaggcagga	gaatggcgtg	aacctgggag	gaggagcttg	55800
cagagagctg	agatcgcgcc	actgcactcc	agcctgggcg	acagagtgag	actccgtctc	55860
aaaaaaacaa	aaaaaaaca	aagaagtgaa	gtaattgcca	tgatgctcca	agaattatct	55920
ctttgtctat	gaaatccaga	aatctcactg	ttatacattt	tggaattatt	attctgggcc	55980
aatatttcct	gggacacaat	agattgactc	tatagattta	atttttttt	tttttttgag	56040
acagagtctc	actgcaatct	cagettactg	caacctctgc	ctcacgggtt	caagcaattc	56100
tcctgcctca	gcctcccaag	tagctgggac	tacaggcgcg	tggcaccatg	cctggctaat	56160
ttttgtcttt	ttagtagaga	cagggtttca	ccatgttggc	caggctggtc	ttgaacgcct	56220
aacctcaagt	gatccacctg	cctcagcetc	ccaaagtgct	gggattacag	gcgtgagcca	56280
ccatgcccag	cctcaattcc	tctttctatc	tggtaatttt	tctgaagttg	aaaacatttg	56340
ttctaatacg	ttatttcagt	gttcttctaa	gatgtgtaaa	gcaccctatt	cccaggtcag	56400
cccccatctt	gctagtgagc	teggetggtt	cttcacaaga	gctctggttt	tctcctgctt	56460
aatctcaagt	acctctgtca	gcctccacct	ggtttatgat	ttggagtttt	ttaattttta	56520
ttttttgttt	ttgacagagt	cttactctgt	cacccaggct	ggagagcagt	ggcataatct	56580
cagctcactg	caacctctgt	ctcccaggtt	tgagcgattc	tcctgcctca	gcctactgag	56640
tagctgggat	tacaggegeg	tgccaccaca	cccggctaat	ttttgtattt	ttagtagaga	56700.
			ttgaactcct			56760
			gcgtgagcca			56820
agttttaatc	tgtagtttta	ataaagatag	tgcttatgtt	tgtgtttctt	atatttcttg	56880
gtactcttgg	gtaatttgta	agatccccat	atctacacaa	gaagtccatt	ttcaattctt	56940
ttcttcagac	tgtttatttt	attttattt	attttattt	tatgtttgag	atggagtctc	57000
gctgtgtcac	ttctggaggc	tggagtgcag	tggcgcgatc	tcaggtcact	gcaacctccg	57060
teteeegggt	tcaagcaatt	ctcctgcctc	agcctcccga	gtagctggga	ttacaggcac	57120
			gtctcgcttt			57180
gtggtgcaat	catggctgac	tataacctcc	aaatcctggg	ctcaagtgat	cctcctgcct	57240
cagcctcctg	agtagctggg	actacaggca	catgccacca	tgcccagtta	attttaattt	57300
ttttgtagag	acagggtctc	catatgttgc	ccaggctggc	ctcctactcc	tggcctcaag	57360
taatcctcct	acctcagcct	cccaaattac	taggattata	agcatgagcc	accatgccca	57420
geettgttet	actactttaa	tttcatatgt	taggtgacca	tgtaattgat	catccaaacc	57480
aggatactgt	aagaatgaaa	gaggctgaca	gtagtatgat	gctgggacta	gcattgtgca	57540
ctgagattat	ttctgggaaa	gcaggagata	cggtcaccct	acttatagtg	tgcttgtctt	57600
tggattgttg	aatttggagt	ttctatttgc	aggcttattt	caactgggca	gccttgatcc	57660
gccctgccca	gcaatgctac	cgttctctcc	accgggtctc	tgggacccct	tcagtcacta	57720
tacttagctc	agttccccac	cctcccactc	cctaaaagcg	taaccaggaa	tcctgcctca	57780
ggtctactgc	cgtcttccgt	gggctgtttc	agttcctatt	acccagagtc	aaactcccag	57840
cattccctac	ctgattccag	acttggagtc	cagagcttta	acctcttcag	gccaactccc	57900
cactttgcat	ttctgtccct	atatcttagt	ccatggagat	acatttcatg	tctttgagtc	57960
tacttacaaa	gtaaattttg	ctgtttttta	atttttttt	tgagatggag	tcttgccctg	58020
tcacccagge	tgtggtgcaa	tgacgccatc	tcggctcact	gcaacctccg	cctcctgggt	58080
tcaagcgatt	catctgcctc	agcctcccaa	gtagctgtga	ttacagacag	gcaccaccac	58140
gcccagctaa	tttttttat	cttttagtag	agacagggtt	tcaccatqtt	ggccaggctg	58200
gtcttgaatt	cctgacctcg	tgatctgccc	atctcggcct	cccaaagtgc	tgagattaca	58260
ggcgtgagcc	actgtgccca	gccaattttg	ctttttttat	atttcattqc	tatatottta	58320
gaggataagt	ttacagtgct	atatgcattc	ccaaatatta	gaccaaaaaa	atctccaaaa	58380
aattagaaag	aaaatccaaa	aaatctcaaa	aaataccaaa	aagcaacaat	ctcacagacc	58440
atactcactg	acccccaata	aaataaaatt	agaaattaac	cacaacttaa	caaaataaag	58500

#### -157 of 185-

tactcaagtc agagaggaaa gaggaaataa acatcaaaat tacaaagtct aggcggtggc 58560 tcacgcctgt aatcccagca ctttgggagg ccaaggcggg cagatcacaa ggtcaggaat tcgagaccag cctggccaat atggtgaaac cccgtttcca ctaaaaatac aaaaattagc 58620 58680 caggeatagt gatgtgtgee tgtaatecag ceaettggga ggetgaggea ggagaateae 58740 tgaacccagg gagacgaaga ttgcagtgag ccaaaatcgt gccactgcac ttcggcctgg gtgacaaagc gagactccat ctcaaaaaaa aaaaaattac aaactcttta gatagaaatt 58800 58860 ttggtgtttt tttttgagac ggagteteac tetgtegeag aggetggagt geagtgggae 58920 tatgtcaget cacegeaace tecatetect ggattcaage aattetectg teteageete ecaagtaget aggattacag gegeceacea ceagacecag etagtttta tattttagt 58980 59040 agagatggtg tttcaccatg ttggccaggc tggtctcaaa ctcctgacct caagtgatcc 59100 acctgettea geeteecaaa gtgeteagat tacaggegtg ageeacegea ecceacetag atagaaattt caacatgagg eegggeacaa tggeteaege etgtaatete ageaetteag 59160 59220 gaggetgagg egtgggagga teaettggge ceaggagtte aggaceagea tgggtgaeag 59280 59340 ttcaacatga aaagtatete teaaaceett egagatgttg geaaaaageg acteaaagga 59400 aaatgtatta ctgtgtgtga atttgcttga aaataagaaa gaggccgggt gtggtggcta 59460 acacetgtaa teecaacaet etgggagtee gaateaagtg gateatgagg teaggagate gagaceatee tggetaacat ggtgaaacee tgtetetaet aaaaatacaa aaaattaget 59520 59580 aggegeggtg geteatgeet gtaateceag eactttggga ggetgaggea ggtggateae 59640 ctgaggtcag gggtttgaga ccagcctggc ctacatggtg aaacctcgtc tcttctacaa atacaaaaat tagctgggcg tggtggtggg tgcctgtaat cccagctact cagaggctga 59700 59760 ggcaggagaa tegettgaac cegggaggeg gaggttgegg tgageegaga tegeaceaet 59820 acactecage etgggeaaca geetgggtga cacagtgaga etccatetea aaaaatacaa 59880 aaaattaget gggtgtggtg geetgegeet gtagteeeag etaceeggga ggetgaggea 59940 ggagaatgga gtgaacctgg gaggaggagc ttgcagtgag ccgagatccc accactgcac tccagcctgg gcgacagagc aagactcttg tctcaaaaaa aagaaaaaa aaggaaaaaa 60000 60060 gaaccetgat aataaagaaa ccaaatgtte aactetcaaa geteggacae tttaaagaaa 60120 taattaataa aggcagaagt taaagggagg atgataaagc aattittitt gtiggtiitt 60180 ttgagatgga gtcttgctct gtcacccagg ctggagtgca gtgatgcgat cttggctcactgcaacctct gcctcccggg ttcaagcaat tctcctgcct cagcctcctg agtagctggt 60240 60300 actacaggtg cgcgccacct ggcccagcta atttttgtat ttttattaga gacggggttt 60360 caccatattt gttaggetgg teteaaaete etgateteag gtaatetgee caceteggee 60420 teteaaagtg etgggattae aggeaggege cacegegeet ggeetaaage aaaatattgg 60480 ttctgtgcaa aaggtcaata aaaagagcaa acgtttacaa actggagcca gcacccattc 60540 ageteagtgt gtetggagaa aaaacaatet egetteagaa tteatgatta egeageeett 60600 tttgcttcct aaaaatccta ctatgttgct gttgaccatt ctctctctt ctctctcttgcttctct ccagaaaagc tattcagaca ttctcctctt tcctcaaacc tccaacactt 60660 60720 cctcctccat ccttagcctc agctgctgac ctcacttcta atcattgaga aaccaggaga 60780 agcatttaag agtgaacete egeeteeeeg caegggeaaa accaeceace caeagaattg tgeeceaatt etgegteete teeteteace atggatggae ggteeagget eegageeaaa 60840 60900 gecaggeete ceetggaget etggateeae cacetgeage tteteaggea gggeeceage 60960 ageteceetg etecettgta ceateaatee eteceeteae tgggteacte ecaacaatat 61020 atatatttag tgatgtttet eccatgtggt aaaateaett ageetetete eteeceage 61080 tactatecta titgittett tecattetet geaaaaette teaaageatt gigtetatgi 61140 getgacteca tttatettet ecegttetet getgagteet teccacagae teteacecca 61200 gttactccat gaaatgacct ctgcactgcc acatccaatg gtgaatgttc agttcttaat 61260 tttattcagt ctttcagcag catttgacct ggccgatcac tccctcttct taaaaatact 61320 tttctcagcc aggcgtgatg gctcacacct gtaatcccaa cactttggga ggccaaggcg 61380 ggaggatcat gagagcccag gagttcaaga tcagcctggg caacatggca agaccctatc 61440 tetacaaaaa etaaaaagta geeagtgtga tggeatgeae etgtagteee atetaettag 61500 gaggetgagg cagtaggatg acttgageet gggaaatcaa ggetgeagtg agceatgatt 61560 geaccactge actecageet gagtgacage gagaccetgt etcaaaaaga caaaatagga 61620 aacttttete ageatattee tetgattete etgetgette tgtetgeaca gatteagtet 61680 cetttgccgg ttetteetea teeteetgat etettgaeet tgaagtgeee cagagtacag 61740 tettttttt ttttttgag acgeagtete gtetgteace caagetggag tgcaatggeg 61800 aggteteage teatgeaace tetgeeteet gggtteaage gatteteetg ceteageete 61860 ccaagtagcc aggactacag gcacatgcca ccatgcccag caaattgttg tatttttagt 61920 agagacaggg tittactata tiggccacgc tggtctcaaa ctcctgaact cgtgaaccac 61980 ecgectegge eteccaaagt getgagatta eaggeatgag ceaccaeace eggeceagag 62040 tacagtettt agaeggeete tetacetata ettgeteeee teataaacte eteetgeete 6,2100 atggetttaa ataccategg tagaetgatg acteceatat ttetettttt tttttggaga 62160 cggagtctcg ctcagtcccc caggctggag tgcagtggcg cgatctcggc tcactgcaag ctccacctgc caagttcaca ccattctcct acctcagcct ctccagtagc tgggactaca 62220 62280

# -158 of 185-

	ggcacccgcc	accacgcctg	gctaatttt	ttgtatttt	aqtaqaqatq	gggtttcacc	62340
	atgttagcca	ggatggtctc	gateteetga	cctcqtqatc	caccatata	ggcctcccaa	62400
	agtgctggga	ttataggtgt	gagccaccgt	qcccaqccqa	tgactcccat	atttctatct	62460
	cttgctgtgt	ggagttete	ctcagaactc	catactcata	aatccaactc	tcataaatag	.62520
	tatctcaaat	gggcaatato	ctcaaaagtc	aattcctact	tttctcccta	aacttgcttt	62580
	cctgcagtct	ccaccatctt	aatgtccaat	ctaacattac	ranncaaaaa	ctttgaagtc	62640
	attettgact	cttctctatt	acacacccta	trrastritt	ctgcagatcc	agtogaagee	62700
	caaatccagt	taggtgtgat	catctcccct	cttacccct	ggtccaggcc	agecgaetet	62760
	ctcacctgaa	tcactgcage	attetectea	ctactatatat	tggttctgtt	ttanataana	
	cttaccatac	tetecacage	accetece	ccggccccc	nangtetat	tcccatcctg	62820
	tecetactet	cctccacaga	ctatcatast	tagaattt	atctgtcaga	tteecateetg	62880
	garatta	geteaaaaee	atastataa	tottgttta	accigicaga	Ltaaaagcca	62940
	tcactccact	agegacetae	acgaccigco	tattattatt	tcccacttct	tteeeettge	63000
	atttacaaaa	tttatatatt	agetgeete	tetgttteet	gaacagccca	gattttgett	63060
					gtttttccag		63120
	ggetetetet	rgeacticet	coccac	catgtttaaa	aatcactcaa	acacacttca	63180
	ggccggacat	ggtggeteae	geergraate	ccagcacttt	gggaggccaa	ggtgggtgga	63240
	ccacctgagg	tcaggagttc	gagaccagcc	tggccaacat	ggtgaaactt	cgtctctact	63300
	acaaacacaa	atagtageca	ggrgragrgg	cacacacctg	taatctcagc	tactcaggag	63360
	gctgaggcag	gagaatcgct	tgaacccaga	aggcagagga	ggtgcagtga	gccaagatca	63420
	cgccacaaca	ccccagcctg	ggtgacagag	caagacccca	tctcaaaaaa	aaaaaaagaa	63480
	aaaaaaatca	cacaaacaca	cttctcttca	tattcctttt	ccaagtttta	tttttctcca	63540
	gaatacttta	cattgtttta	atggaagttc	tccgtttccc	cccaactaga	atggatactt	63600
	cctgcaggta	ggcactctag	tcctcccatc	caagtactaa	ccaggctcaa	ccctgcttag	63660
	cttctgagag	caggggagat	caggcctgtt	cagggtggta	tggcccagga	attttgattc	63720
	tgttttattc	attgctgttc	tgttgattct	cttttgttcc	tcctcctagt	gctgagaaca	63780
	ctacttgtac	ataataagca	ttcaataaat	atttgttgaa	tgaatgactt	gttqaatgaa	63840
	ttaatctcag	aaatgcagga	ctggttctac	attagaaaat	ttttcaaggt	cattctctqt	63900
	tgtcgtaaca	cattaagaga	ggaaaatttt	gtactctaaa	tcatttgata	aaatacatac	63960 [.]
	tgatttctgt	tttcaaaaac	tcttagtggc	tgggcgaggt	ggctcacatc	tataatccca	64020
	gcattttggg	aggacgaggt	gggcggatca	cttgaggtca	qqaqtttqaq	accadcctdd	64080
	ccatcatggt	gaaaccctat	ctctactgaa	aataqaaaaa	ttagccgggt	ataataacac	64140
	atgcctgtag	tcccagctac	ctgggaggct	gaggcaggag	aatggcttga	acccgggagg	64200
	cggaggttgc	agtgagccaa	gatcatgcca	ttqcactcca	acctaaataa	cagagtgaga	64260
	ctccatctca	aaagaaaact	cttagtgagt	ttaggaatcc	aaqqaaqacc	ctcaaactaa	64320
	atagataatc	tagctaccag	aagccttcag	taaaccttaa	cactccatqq	tqaaacatta	64380
	gaaacattcc	tactaaaaga	caggctaaga	atgcctgcaa	tcttcacggc	tagtccaaga	64440
	agtcaaaaag	aagaaatgag	cgctgattta	aaaaaataaa	caaacaaaaa	actaccgatg	64500
	cagaggctgg	cagcaaggac	tgaaggactg	tacagtactt	acctagaaca	gacagatage	64560
	cacacccctg	cgaagcctgc	tcagctggct	gggggacgct	ccaqtqtqtq	agtggcagga	64620
	tgcagggtac	ttcctctgcc	agggagttgc	actogggaga	tcctcccca	ctcacacttt	64680
	ggcagctggg	gctttggaat	gtgacttagc	ttctqtcaaa	gggtcaatcc	accetttgat	64740
	atatgatgca	aaggcgaaca	tatgatgcaa	aggtgagaga	acagcccaaa	ttaggacttt	64800
	taccacaget	gtggaggtgg	acagcgacag	taataaaccc	tggccagact	tttcatgctc	64860
	aaaggtggtg	gttgttcttc	ctacttcttq	tccctccagg	gcttcctttg	cctatatact	64920
	gaacctgctt	cttttaattt	tttttaactt	ttttaaattt	ttaattgttt	taattaaaac	64980
	aaattttgaa	aactgtctga	acctgctttt	gaaccctgct	atgatttgaa	tatttatece	65040
	ctgccaaact	gattttgaaa	cttaatctcc	aaaqtqqcaa	tattgagatg	gggctttaag	65100
	cagtgactgg	atcatgagag	ctctgacctc	atgagtggat	taatggatta	atgagttgtc	65160
	atgggagtgg	catcagtage	tttataagag	gaagaattaa	gacctgagct	accatootco	65220
	ccccttcacc	atttgatatc	ttacactacc	taggggctct	gcagagagtc	cccaccaaca	65280
	agaaggetet	caccagatac	agetecteaa	ccttatactt	ctcagcctct	gtaactgtaa	65340
	gaaataaatg	ccttttcttt	atgaattacc	cagtttcaga	tattctgtta	taaacaatad	65400
•	aaaacgaact	aaggcaaact	ctcatgattc	tactoccato	ccattccaat	aaactacatt	65460
	tatgcttaag	agagccagag	ttggccaggc	ataataactc	acgcctgtaa	ttccaccact	65520
	ttaggagage	gaggcaggtg	gatcacaagg	tcaggagata	gagaccatcc	taactaacac	65580
	ggtgaaaccc	catctctact	aaaaatacaa	aaaaattacc	tgggcgtggt	agtooctooc	65640
	tatagtage	actactegge	aggetgaage	aggaggaga	tggcgtggac	agegggegee	65700
	gagettgeag	tgagtcgage	teataceact	acactccaca	ctacatasas	ccayyayycy caatcacact	65760
	ccatctcass	232323434	accadagttt	atttctctcage	cttgcaacca	guargugaer acaaatetee	
	ctaatacaat	gaagtttcc:	taaataataa	Caatttaaa	actettteca	agaaacctyg	65820
	tgcctagcct	tatateatca	ttataataat	acattcatt	actocccca	tanaggeaa	65880 65040
	gtgctccaga	ractaareet	acaaaaatoo	CCCCCCCC++	tactacttgt	anaatataat	65940
	cctagcactt	tagaagaat	acacacatec	atcacetes =	changetea	cacctataat cgagaccaac	66000
	- Junguaull	raggaggiccg	aggeaggeag	accadetgag	greaggagtt	cyayaccaac ·	66060

# -159 of 185-

ccggccaaaa	tggtgaaac	: cctactctac	: taaaaataca	aaaaattago	tgggggtggt	66120
ggcggacacc	: tgtaatccca	gctactcqtq	r agactgagge	aggagaatca	cttgaacccg	66180
ggagggagag	gttgcagtga	gccgagatcg	caccactgca	ctccaccto	ggcaacaaga	66240
gcgaaactcg	acataaaaa	222222222			990000000	
gogaaacccc	accicgaaaa	aaaaaaaaa	aaaaaaayay	ageegggget	gggcgcagtg	66300
gordacgect	gtaatcccag	, cactetggga	. ggccaaggca	ggagaattac	gaggtcagca	66360
gatcgagacc	: agcctgacca	ı acatggtgaa	accccatctc	tactaaaaat	acaaaaatta	66420
tccgaacata	ataacacaca	cctctagtcc	: cagctacttg	ggaggctgag	gcaggagaat	66480
cacttaaacc	. caaaaaaacac	aggttggagt	daddddaaat	9343300343	cactccagcc	66540
taataaa		aggeegeage	gageegaaae	catgccactg	CacteCagee	
rgggrgacag	agigagacic	cytoteaaaa	aaaaaataaa	aaaaaaaaa	gaattcaaaa	66600
attgtagagt	tatagtgtgc	: ttctagttta	. gttgagagga	catctgtcct	ťcaaggaagg	66660
ctagaatcta	taccctgagt	. ccttactgaa	. atcaatccaq	cagtcaaaac	atgggaccaa	66720
cgatcacage	agtaagatag	gaagagcacc	tttgtacatt	tageteatgt	tgagataagc	66780
cactgacaga	actassaass	gatgagaatt	ctagattaga	tagtttagg	tttaaaaaga	
aaacagacaga	gorgaaggaa	theeter	tegggeeda	Lectriggea	tttaaaaaga	
aaaytgctaa	gaaaattegg	ttggtcacgg	tggctcacgc	ctgtaatccc	aacactttga	66900
gaggccaagg	caggcagato	acgaggtcag	gagttcgaaa	ccagcctggc	caacatggtg	66960
aaaccccgtc	tctactaaaa	. acagaaaaat	tagccgggca	tgataacaca	tocctataat	67020
cccagctact	caggaggetg	aggcaggaga	attocttosa	cccaaaaaaa	ggaggttgga	67080
acaaataaaa	acadaccact	gcactccage	atagggggaa	gaggaggagg	atatatana	
3030303030	9009900000	gcactccagc	ccgggagaca	gagcaagact	Cigicicaaa	67140
aaaaaaaag	aaaaaaagaa	agaaaggaaa	aaaagaaaga	aaaaaaaaga	aaaaagaaaa	67200
ttcaggccag	gccaggcctg	gtggctcaca	cctgtaatcc	caacactttg	ggaggctgaa	67260
gcgagacggt	gccttagccc	aggagtttga	gaccagcetg	agcaacatag	cgagaccctg	67320
tetetataaa	aaaaaaEttt	tttttggcca	dacacaataa	ctcacccta	taatcccacc	67380
actttaggaa	aaaaaaaaaaa	ataataaa	gacgcagtgg	-teracgeeeg	taatectage	
accuraggag	geegaggeag	gtggatcacg	aggreaggag	atggagacca	teetggetaa	67440
cacggtgaaa	ccccatctct	actaaaaaat	acaaaaaatt	aaccgggcgt	ggtggcgggc	67500
gcctgtagtc	ccagctactc	gggaggctga	ggcaggagaa	tggcgtgaac	ccqqqaqqcq	67560
gagcttqcaq	tgagccgaga	ttgcgccact	gcactccaga	ctgggagaga	gtgagactcc	67620
gtctcaaaaa	aaaaaaaaaa	aaaaaaaat	taattotcao	atatactacc	atgragetet	67680
agtcctaget	actegggagg	ctanaaaaaac	andetgecag	gegegeegge	acgeageege	
agecetagee	accegggagg	ctgaggtaag	aagattgett	gageceagga	gttcaagget	67740
geagraatag	tgeeteteae	tctaccctgg	gtgacaatga	gaccctctct	caaaaagaaa	67800
gaaaaaaggg	aaagaagaaa	agaaagaaag	aaagagaaga	aaggaaggaa	gaaagaaaga	67860
aaaagaaaag	gaaggaagga	agaagaaaaa	aaaaqaaaqa	aagaaaagag	agagaagttc	67920
aaagaccaaa	gggtcaggat	cccaaaatag	tttttatatt	ttatttattt	atttacttat	67980
ttattttta	gagagtatgg	ctctctcccc	asaaataasa	taasatasta	acceaeceae.	
tasatasasa	gacagcacgg	ctctgtcgcc	caggorggag	tgcagtgatg	egattgegge	68040
ccaccgcage	ecceaaaccg	ggctcaggtg	gccctcccac	ctcagcctcc	cgagtagctg	68100
ggaccacagg	cgcgtgccac	catgcccagc	taattttta	attctttgta	gagatgaggt	68160
ctctatatgc	tgcccaggct	ggtctcgagc	tcctqqqctt	aagccatcca	cccgcctggg ·	68220
cctcccaaag	tactaggatt	acagaagtga	accaccacac	ctaatcgggt	aatttattta	68280
tttattgacg	agateteact	actaccesaa	gtagagtaga	ccaaccgggc	ggcccgcccg	
atastas	9990000900	gctgcccagg	ctggagtgcc	agragarar	cacaggugea	68340
gueeuggage	attgcatcag	ctcttgggct	ctagcgatcc	tccagagtag	ctgcagctgg	68400
gattccaggc	gcgccaccgc	gcggggctca	gaatgggttt	ttatattgag	ggttatgctg	68460
ccacctagag	gatatatgta	gtaccgaact	gtgtgcgcag	ggaggetgag	gttgcagtga	68520
gccaagatga	taccagaga	ctccagcgtg	gatgacagag	caagatttca	tctcaaaaaa	68580
22222222	22222222	aagaattgaa	22422444	tassassas	ttteteete	
tataataata	aaaaaaaaaa	aagaaccgaa	agraaggree	LyaagagaLa	cregracera	68640
Lacygodaca	geagrariaa	ctttgaccca	ctagctaaaa	cacaaaagca	acatgtgtct	68700
greageaggt	gaacggataa	acaaaatgtg	gtatatatgt	acaattgaat	attattcagc	68760
ctttaaaaag	gaataaaagg	ctggatgcgg	gggctcacqc	ctgtaatcct	aacactttqq	68820
gagactgagg	tgggtggatc	acccgaggtt	aggagtttga	gaacagcctg	gccaacatgg	68880
tgaaacttca	tetetactaa	aaatactaaa	attaggggg	gameageeeg	sttatatata	68940
2500220000	at accessor	±	accageeggg	cacygragea	Citycolgia	
acceaageta	ccggggaggc	taaggcagga	gaattgettg	aactcaggag	ccggaggttg	69000
cagtgagcta	agatggcacc	actgcactcc	agcctgggca	acagagtgag	actccatctc	69060
aaaacaaaca	aacaaaaaat	tattatttcc	aaaqaaacaa	gaccctgggt	ccatttccca	69120
gcccacacct	gatgttgact	cacaacacac	agectagttt	actataaaca	tacttcattt	
aattataaaa	ttaaattaaa	at caecate	ageceggeee	gctatgagct	tgcttcattt	69180
batastas	h-b	atcaccctca	agreetggaa	taactctttg	ctgacctttg	69240
rgrgergage	catctccatg	tcgctcaacg	tgcagtccct	ctcactgcac	tgagtcaata	69300
gccagacgtg	gtctgactgc	agggtcatcc	ttggtggctt	aggctgactc	gggcatagca	69360
gggtgctctg	agacctcacc	gcatataggc	tttqccccca	ataaactcta	tataatattc	69420
atattatoto	atctagatat	gtgtagcttt	gcactgtgtt	ctcatcaca	taccetassa	69480
ctctttccc	grattt grat	atatacata-	tanaat	cucyugacag	Lycolocaac	
coccetted	ggacccccc	ctctacctcc	ccaaycccca	cigototgca	aagaccaaaa	69540
gergeagagt	cccagctccc	tcctttacac	cccacgacgc	agcctcctct	ctcagaaccc	69600
tttaaacaga	gtcttttact	gcagatccca	agaacagcca	cacccctctc	teccacceae	69660
tccagacaca	cccaggtaat	tatagcaccc	agggtaacta	tatagataga	gtccctggaa	69720
catotogata	atacccccta	ggagtatgca	aaagcaacat	tactacasas		69780
addatasast	ccaccaatca	dadcatedca	atataaaaa	baccastate	cycayayaac	
~======	ccayyaacca	gagcatgggc	ccccgggagg	ragggatgtg	gccaggcagg	69840

#### -160 of 185-

ctgccaaaaa ttggtagagc aaggccacag gatctttctg accttccttc caaacagagg 69900 ctectgtact ggtgatecet gtgttgattg accaetecet teetgggggt egtggtetet 69960 gtcccagttg cccggacttc tgtgagtgtc ctactgaggt ccttttcatg agaagcatgc 70020 tgtccttcca cctgctggga gcaagagtga caacttcaat actataatag cagtggcata 70080 cagagaagaa gaaagatgaa gtggcaagaa aaacaggctt ccaagcagga gtttttctat 70140 aaaaacaaaa acgtttacaa gcaaactttt tataaagggc tagatagtaa atattttagg 70200 ctttgagage cacatagact tgtttgeagg gacteaatgt egetattgta gtttgaaage agecateagg gttatgtaaa tgagtgagte tgattttgtt teageaaaat tttatttaee 70260 70320 aaaacagaca atgagtgggc tggatttggc ccatgatect tagtttgcca actectgett 70380 tgggeteacc cagatetgat titgaattet ggetetgeta etggttaget geaggagett ggaaggetet etgageetgt tteeteatet gtaaaattaa ageaataatt tetaacaete 70440 70500 aagagtgtta cctcacgcct gtaatcccag cactttggag gctgaggcag gcggatcacc 70560 tgaggtcaga agttcaagac cagcgtggcc aacgtggcaa aaccctgtct ctactaaaaa 70620 atacaaaaag tagccgggca tggtggcgcg catctgtaat cccagctact tgggaggctg 70680 aggcagggat actgctagaa cctgggaggt ggagcgtgca gtgagtggag atcacacctc 70740 cacactccag cetggeegac agagegagae tecatetcaa aaaaaaaaa aaaaagagtg 70800 ttagaaggtt ttgagataat gaataaaga tgccttgtgt atactaagta ttcaacaact gatagctgca ttggtctaat tataacagtt tagaagcgat tgagtcaaca aatgctggat 70860 70920 ttgtcaggga ggacttccta tcaggaggta gatcttgggc tgagtcctga agcaaagata ggcattggat agaggagttg agagaacacc ctaggactgt tattattatt attcgacacg 70980 71040 gagtetettg etetgteace caggetggag tgeagtggeg egatetegge teactgeaac 71100 ctctgcctcc caggttcaag cgattctcct gcctcctaag tagctgagac tacaggtgtg tgccaccaca cccggctaat ttttatattt ttagtagaga cagagtttca ccatgttggc 7116Ò 71220 catgctggtc tcgaactcct gacttcaggt gatccacccg cctcagcctc ccaaagtgct 71280 ggaataacag atgtgagcca ccgcacccag cccagaacca tttttcaatc cttggctctg 71340 71400 cattcacaaa atgaggcaaa taataatatc tactatccca ggttgtcatg agaattaaat gcaacatgac atttaatgaa atgagaagtc ccttggacat taactggcta aagtatgtgc 71460 71520 tegacaagga tateatttta ggtggataet tageatetea gaaetgatge teacaatgga 71580 atatcattga aacgcattaa aattcatttt aaatgattgt aggtagtgag gcaattgaaa gaagaagaca agaggactga ttataatgct tcaggctcac tagtctcctt ttaggaggga 71640 71700 aaaacaattt caagttaaat tttaggctct agatttttac ccctgctgct cattagaatc 71760 acccagattg atgaaatcag agcccatctg aggctgtgtt tttcatctcc agaatgagag ctgttgtggg gattaagttt ttgaaaaagt acatctaaca ggtgatcgaa aatgatagtg 71820 71880 atattattgc agtgatggtc attattgttg ttattattat actgaaagag gcttcagttt 71940 totgatocat aaagtgaggg aattgcatga gaccattgct aagattcctt ctagctctgt ttttttgttt ttgttttta gacagagtct ctgtcgccca ggctggagtg caatggcatg 72000 72060 atcttggctc actgcaacct ccgcctcccg ggttcaaatg atcctcctgt ctcagcctcc 72120 gaagtagetg ggactacagg cacacaccac catgeccage taacttttat atttttaata gaggtggggt tteaccatat tggtcagget ggtctcaaac teetgacete aggtgateca 72180 72240 eccgcetegg ceteceaaca tgetgggatt acaggcatga gecactgtge ccaaccett 72300 ctagetttet tgateactga ttetagggtt etetgetqaa atatatttga gacateetqq 72360 ataaaagatc atgcaagagc tcccaatatg gtattaataa ttgattctgg aggcttagct 72420 actectgatg gattagacat gacteaactg cetetettat gtgtacaaca caacaacaa accaagaaag gttattetgg cattecattt atteagttta tttacagece ttacttecag 72480 -72540 cagcacgtta aagatatggc cagggccggg tgcagtggct caagtctgta atcccaggac 72600 tttgggaggc caaggtgggc ggatcacaag gtcaggagtt tgagaatctg gcaattcttc agacttagaa gcaaccagct cgataacaca gtcttgtgtg ggctctccct ctgtccctcc 72660 72720 etegettece teatttetea tecetgecee tgagactgtg cacetteaca tageeetgee 72780 atgagacett cateteagge titgetitet ggggtaactg aggetaaaca etgagtggee ctaaaagagg attgggattt ggaagttaga tiatteacea gagaacagae titgetgatg 72840 72900 atcaggocca ggttgtaatt gttgaaaaaa agagaggatg catagtotta totcatotoc 72960 tagtcaaagt caacaccatg ataaataaga gtcaaatcct gagatgtgaa ttggggacat ttgagtggtt aaccctgaga agcttgcacc ttcagacccc tcaatacccc tgctccccag 73020 73080 agaaggetgg acattgaeet cageacagge aggageeetg caagatgeea tttgteetae 73140 taaagatgga cccctccact ctgtttctag gtaaataacc aaagtcaagt ctccacacag 73200 cctgagcaag aaagtcagag cctgctacag gagaaaatac cacactggcc aaaggattca ctagccctgg ccactgtgtg tgggaggaac cagggaatca tgtgtgggag tcaatgttga 73260 73320 agetgttgga etgggggtgg ggtggaatat aageetggee etggggagtt ttteeegttt gagggeettt acceacaact caagatecag tgetatagea ggagatecea gagetagtee 73380 73440 taacagatgg tcaggattga acttggccta gagtaaaatg aggaggatag tgccagaact 73500 ttctcaacat actattgagg aagaggtcag aaggcttaag gaggtagtgt aactggaaag gggtcctgat ccagacccca ggagagggtt cttggacctt gcataagaaa gagttcgaga 73560 73620

### -161 of 185-

cgagtccacc cagtaaagtg aaagcaattt tattaaagaa gaaacagaaa aatggctact 73680 ccatagagca gcgacatggg ctgcttaact gagtgttctt atgattattt cttgattcta 73740 tgctaaacaa agggtggatt atttgtgagg tttccaggaa aggggcaggg atttcccaga 73800 actgatggat cccccactt ttagaccata tagagtaact tcctgacgtt gccatggcgt 73860 ttgtaaactg tcatggccct ggagggaatg tcttttagca tgttaatgta ttataatgtg tataatgagc agtgaggacg gccagaggtc gctttcatca ccatcttggt tttggtgggt 73920 73980 tttggccggc ttcttatca catcctgttt tatgagcagg gtctttatga cctataactt ctctgccga cctcctatct cctcctgtga ctaagaatgc agcctagcag gtctcagcct cattttacca tggagtcgct ctgattccaa tgcctctgac agcaggaatg ttggaattga 74040 74100 74160 attactatge aagacetgag aagecattgg aggacacage etteattagg acaetggeat 74220 ctgtgacagg ctgggtggtg gtaattgtct gttggccagt gtggactgtg ggagatgcta ctactgtaag atatgacaag gtttctcttc aaacaggctg atccgcttct tattctctaa 74280 74340 ttccaagtac cacccccgc ctttcttctc cttttccttc tttctgattt tactacatgc 74400 ccaggcatge tacggcccca geteacatte ettteettat ttaaaaatgg actggggetg 74460 ggcgcggtgg ctcatgcctg taatcccagc actttgggag gccgaggcgg gcggatcatg 74520 aggtcaggag atcgagacca tcctggctaa cacggtgaaa ccccgtctct actaaaaatg 74580 caaaaacatt agccaggcgt ggttgcaggt gcctgcagtc ccagcggctc aggaggctga ggcaggagaa tggcgtgaac ctgggaggtg gaggttgcaa tgagccgaga ttgtgcact 74640 74700 74760 tagetgggea tggtggegeg tgeetgtaat accagetaet etggaggetg aggeaagaga 74820 atogottgaa cocagtaggo ggaagttgca gtgagccgag atottgacac tgcactccag 74880 cctggtgaca gagtgagact ctgtctcaaa aaaaaaaaa agaaaaaaa agacagaaag 74940 aaagagcaca gacagagtca caggtatttg cagtaggaag ctgtcaggtt agagtgcacg 75000 gaaatagaaa gtatatttta cacttacagc acatcttcgt ttgattagcc acatttaaaa 75060 tactgaatag caacgtgtgg ctatttagta ttcactaaaa tcttggacag tgcaagtcta aagaatcctt gatccgtccg gcatggtggc tcacgccttt aatcccagca ctttgggagg 75120 75180 ccaaggtgga aggatcactt aaggtcagga gttcgagacc agcctggcca acatggtgaa acctcgtctc tactaataat acaaaaaaa ttagccgggc atggtggtgc atgcctgtaa 75240 75300 teccaggtae ttgggagget gaggeaggag aatagettga atccaggagg egetgeagtg ageegagate atgceatgee actaetgeae tecageetgg geaacagagt gagaetgtet 75360 75420 caaaaaaaaa aaaaaaattg ttgggcgtgg tggctcacgc ctgtaatccc agcactttgg gaggctgagg ggggtggatc acctgggttc tggagttcga gaccagcctg gccaacatgg 75480 75540 tgaaacccca tctctactaa aaatacaaaa attagctggg cgtggtggtg ggcacctgaa 75600 atctcagcta ctcaggaggc tgaggcagga gaatttcttg aacccaggag gcagaggttg 75660 cagtgageca agategegee tetgeactee atectgggtg geagageaag actatgtete 75720 aaaaaaaaa aaaaaaatac ttgattgtct ggacattctg cagaacatca tatggagaca ctatgttgac gacatcatgc tgattgtaag caagaaatgg caagtgttcc agaaacacag 75780 75840 tcaagacaca tacatgccag aaggtgagat ataaactcta ctaagattca gtggcctgcc 75900 acactggtga catttttaaa cetgetagat gtttgtgtag aaaaggattt aacettgeee aaagagggt etggeetttg teeccageta etggacataa tetetttaaa etettgaaat 75960 76020 atcattcctg atagaagtat ttttgttttg actaggggcc ttgggccagc cagatagcaa 76080 caatgtgatc tgggttgggg gctttggatc aggtggcatc agtgtgacct cctgagtggc tagagactag aatcaaccac atgggcagac aacccagctt acatgatgga attccaataa 76140 76200 agactttgga cacaagggct tgggtaagct ttcctggttg gcaatgctct atactgggaa acccattctg actccatagg gagaggacaa ctggatattc tcatttggta cctccctggg ctttgcccta tgcattttc ccttgtctga ttattattat tattatgaga tggaatctcg 76260 76320 76380 ctctgtcacc caggctggag tgcagtggaa tgatctcaac tcactgcaac ctctgcctcc 76440 ccggttcaag cgattttcct gtctcggcct cccgagtagc tgggactaca gatgcatacc accacacccg gctaattttt ttgtattttt agtagagacg gggtttcacg ttagccagga 76500 76560 tggtctcgat ctcctgacct catgttccgc ctgcctcggc ctctcaaagt gctaggaata 76620 catgtgtgag ccaccgcgcc cagccccett ggctgattat taaagtgtat ccttgagctg tagtaaatta taaccgtgaa tataacagct tttagtgagt tttgtgagca cttctagcaa 76680 76740 attatcaaac ctaaggatag ccttggggac ccctgaactt gcagttggtg tcagaaataa 76800 gggtgctcat gtgtgtacca tgccctctaa ttttgtagtt aattaacttt cacaacttta 76860 ttattaccgc ttacactcaa tgtttattca catttatcca cataccactt attctagtgc 76920 cttgcatcaa agactttcta tctcatgtac tttattctgc ttgaagtaaa tcctttagga 76980 taticttttt tttttttaaa ctttgcacat acatacttit atttttatt tattttaat 77040 tttgttattt ttgtgggtac gtagtagata tatgtattta tggagtacat gagatgtttt 77100 gatacaggca tgcaatgtga aataagcaca tcatggagaa tggggtatcc atcctctcaa 77160 77220 gcaatttatc cttcaagtta caaacaatcc aattacactc tttaagttat tttaaaatgt acatttaatt ttgtattgac tagagtcact ctgttgtgct atcaaatata atttttttt 77280 tttttgagac agagtctcac tcagtggccc agactgaaag tgcagtggca caagctcggc 77340 tcacttcaat ctctgcctcc ctggttcaag cgaatctcct gcctcagcct cccacatagc 77400

# -162 of 185-

tgggattaca	ggcacacacc	accatgccca	gctaattttt	atatttttt	agtagagacg	77460
	atgttggcca					77520
	aaagtgctag					77580
	gaggtctgct					77640
	tgggctggag					77700
	caattctcct					77760
	cggctaattt					77820
	gaactcctga					77880
	atgagccacc					77940
tttatatatat	ctttgaaata	tatttttgat	ggatataaaa	ttattaatta	atanttatta	78000
tcattattat	tattattttg	agacagggtc	tcactctatt	acctatacta	acagetacea	78060
	ggttcactgc					78120
	tagctgggac					78180
tttataaaa	tgaggctttg	ccacatttcc	caccaccaca	tetaacteet	gaggtgtagg	78240
	ccttggcctt					78300
	aatatttaat					78360
	tggcactctt					78420
						78480
cccaggccgg	agtgcagtgg ctgcctcagc	characte	geteactgea	agetetgeet	cccgggttca	
gccactctt	ttttatatatt	tteetaeaet	teeesttee	aaggegeeeg	ccaccacgee	78540
toggetgatet	anastastas	teteteses	tggggtttca	cegtgttage	caggatggtc	
atazaaaaa	gacctcgtga	totyteegee	teggeeteee	aaagtgetgg	gattatagge	78660
	gcgcccagcc					78720
ctaggetggt	gtacagtggc	greateres	cccagcgcaa	ceteeacete	ctgcctcage	78780
agtagagata	gctgggatta	atattagaga	gastastata	eggetaattt	actacactac	78840
tetecetece	gggtttcacc ccagcctccc	acgutagaca	ggetggtete	gaacteetgg	ccccaagega	78900 - 78960
actecttee	aggtaatctg	attagactaca	ggcatgagcc	ttttaaaat	ttttattatt	79020
ttttatttga	tgaagttttg	ttattaataa	tatatataa	antheathe	tattetteat	79020
atttacaatt	catagtgatt	cttcaattac	tatattaatt	tatattata	cacciccicc	
						79140
	gttagctttt					79200
	ttgattaaaa					79260
taggazztat	gagaggetga ggtgaaacce	ggcaggcgga	nanatage	ccaggageee	aagaccagcc	79320 79380
	agtcaggagg					79440
	gagatcccac					79500
	aaaaaagtta					79560
	tcattgattt					79620
	ctgattttac					79680
actotocoo	ggccgggcat	gatgactacc	acctataatc	ccaccacttt	graradatas	79740
	tcacctgagg					79800
	aaaaatacaa					79860
cttcgggagg	ctgtggcagg	agaatcactt	gaacccggga	gatagaaatt	gragtgager	79920
gatatogogo	cattgcactc	cagcctgggc	aacaagaggg	agactccctc	taaaaaaaaa	79980
aaagaaaaaa	aacacataaa	acaaaacaac	actotoacoo	ttcccaaaaa	ttaggaggat	80040
aattaaagga	actcctgata	aaaattaatt	ttatcttaca	totaaactaa	aatracttta	80100
	tcagaaatac					80160
aatgtaatat	tcttgttatt	tttaaattct	tettttaact	ttactcatat	ataatcata	80220
	agattaaatg					80280
	tgatgattca					80340
	ctgcccgaca					80400
	ggagaaagtg					80460
	tctacctctt					.80520
gaccacatet	gtaaattggg	aacagcccca	gacccatct	caagccaccc	cttttccccag	80580
aagggggggg	attatggatt	aagtgaggta	gtasttgtas	accagggccc	ace accedada	80640
cocataatáa	gtacttcata	aataatgacg	gccattatca	tgagtgaggt	atatacaast	80700
atcagagatt	acggcgactt	cadaatttct	gotaccacca	act casses	accasator	80760
actoraacto	gaggtgaggc	actocttoto	22-222-029	ttaggt	aguadatudu	80820
acceptagec	gagatttaga	accyclicity	atactagectyc	taggerggag	tagaatataa	80880
teceatace	gagatttaga gagacattca	ggaacttaga	cocactote-	actaccets =	ctacataca	80940
ccccatccaa	Ctaaccacac	agggatttct	ageactere	tocccctac	baseseed	81000
aagggaagag	ctaaccacac	addacataca	ttaataata-	Lycgaggttc	cycacyctgg .	81000
adacacac	gagaagggcg	teagestees	ragasatros	acctacteg	ggeeeetggt	81120
cttaacttca	acttgtcccc	ctttaataaa	gagaaacccc	acgragaccg	cycecygged	81120
cityguitua	gccaatctcc	cccuggingg	ggrgggarge	acyacccaag	gittlattgg	07790

### -163 of 185-

ctacagacag cggggtgtgg tccgccaaga acacagattg gctcccgagg gcatctcgga 81240 tecetggtgg ggcgccgete agcetecegg tgcaggceeg gccgaggcea ggaggaageg gccagacege gtccattegg cgccagetea etceggaegt ceggageete tgccageget 81300 81360 getteegtee agtgegeetg gacgegetgt cettaactgg agaaaggett cacettgaaa 81420 tccaggette atccctagtt agegtgtgae ettgageagt tgaetttatt tttcagtgee 81480 tagttttcca gataccagga ctgactccaa ggactattac tcatctggag ggtttagcac 81540 agtaccgtcg catagtaaat ttccatgtca gttttggtta cctttcatgc acttgcaaac 81600 atgccatgct ctgaaacgaa ataggcacat ctttttttt ttttttta aggagtcttc 81660 etetegeeca ggetggagtg cagtggegeg atettggete aetgeaacet ceaecteceg 81720 tgttcgagat tctcctgcct cagcctcctg attagctggg actacaggca tgccacgacg 81780 cccagttaat ttttgtattt ttagtagaga cggggtttcg ccatcttggc caggctggtc taactcctga cctcaggtga tctgactgcc tcagcctctc aaagtgttgg gattacaggc 81840 81900 ataagccact gcatctggcc agaaatgaaa taagtaaatc ttttaacctg ctctaacaat 81960 atagtgaaaa gaccatatta ttattagagc aggttaaggg atttgcctat ttcgggttct 82020 agttatagtc ttaaacttgg acattcttgt agaaagtaaa aagtttcctc ttcaaagttc 82080 cccttcttgt taaagaatac atcataagtg ttagaagtaa tagtttattt taaagactaa 82140 ctttcttcaa gcctccttgc tttgtgctaa taactctttg ttaagcccta tcctatgtaa 82200 ctgttggaca tgctcacagg cacgttccag ttcacagcct atgccccttc cttatttgga 82260 aatgttattg cttccttaaa cctttcggta agcaacttcc tctccttctt cgttcttcct 82320 tgcacttacc tatttagaaa gttttaggct attagcaaat cggctatcag tttaagagtg 82380 tgaggtcccg ctccagccaa tggatgcagg acatagcagt gaggacgacc caaatgcgta agggataaat atgtttgctt ttcctttgtt caggtgtgct ctcgacatcg ttccatctgc 82440 82500 gattgagcac cctttctgca gaaagtaaag attgccttgc tggagatctt ttgtctccgt 82560 gctgactttt cttcgtggca ccgattatct atttctaaca attttggtat ttctaacatt 82620 ctgaacaatc ttgggctagt tgtctcttct gggcctgttt ccccatccgt cacatgataa acttcattgg tttaaaaacc ccagcgaaca tttattgagt tactattacc ttcctgcct 82680 82740 ecceaaccc aaccceaggg agcagttaca accteagecg etgagegeae tegeegggtg 82800 ttaagaagca ccaaagacag ggaggcttga ttgattttgc tttgggagta gagggtcaga agattcacag gaaaatggca tttgagcaag gatgattcac tggagctagc ttttaaatac 82860 82920 tggcgagget tttatgttge agtecettae aaagttgage attegeaggg actgeactee 82980 gaaataagee egetteeeet ttteattege taatgateea gggagetget ggtteegeat 83040 geggeaggtt gigeettite ctaateaggg tietgeateg celegaacee geaggeegtg 83100 gegggttete etgaggaage agggaetggg gtgeagggtg aagetgeteg tgeeggeeag 83160 cgcctgtgag caaaactcaa acggaggagc aggaggggtc gagctggagc gtggcagggt 83220 tgaccetgcc ttttagaagg gcacaatttg aagggtacce aggggccgga agccggggac 83280 ctaaggcccg ccccgttcca gctgctggga gggctcccgc cccagggagt tagttttgca gagactgggt ctgcagcgct ccaccggggg ccggcgacag acgccacaaa acagctgcag 83340 83400 gaacggtggc tegetecagg cacceaggge cegggaaaga ggegegggta geacgegegg 83460 gtcacgtggg cgatgcggc gtgcgccct gcacccgcgg gagggggatg gggaaaaggg gcggggccgg cgcttgacct cccgtgaagc ctagcgcggg gaaggaccgg aactccgggc 83520 83580 gggcggcttg ttgataatat ggcggctgga gctgcctggg catcccgagg aggcggtggg 83640 geceactece ggaagaaggg tecetttteg egetagtgea geggeeete tggaeeegga agteegggee ggttgetgaa tgagggage egggeeetee eegegeeagt eeceeegga 83700 83760 cetecgtece gaceegggee eegecatgte ettetteegg eggaaaggta getgagggg 83820 cgccggcggg gagtcaggcc gggcctcagg ggcggcggtg gggcaggtgg gcctgcgagg gctttcccca aggcggcagc aaggccttca gcgagcctcg acctcggcgc agatgccccc 83880 83940 tgagtgcctt gctctgctcc gggactcttc tgggagggag aaggtggcct tcttgcgcga 84000 ggtcagagga gtattgtcgc gctggttcag aagcgattgc taaagcccat agaagttcct gcctgtttgg ttaagaacag ttcttaggtg ggggttagtt tttttgtgtt tctttgagga 84060 84120 ccgtggatca agatcaagga aatctcttta gaaccttatt atggaagtct gaagtttcca 84180 aatgttgagg gttttatgtc taaaagcaac acgtgaaaaa attgttttct tcacccagtg 84240 ctgtcttcca atttcctctt tggggggagg ggtagttact gctgttacta aaataaaatt 84300 acttattgct aaagttcccc aacaggaaga ccactacttt tgatgacttt ggcaagtttg 84360 ctaactactg gaaccctaac ttacaaacga actacttaca tttttgattt ccaqttgtat 84420 tacctgccca atgtttacgt agaaacagct taattttgat tctgggtaac gttgttgcac 84480 ttcattaaaa atacatatee gaagtgagea agtatgggte tgtggacage agtgattttt 84540 84600 acgcetgtaa teccagcaet ttgggagget tggegggtgg atcacetgag ategggagtt 84660 caagaccage etgaccaaca tggagaaace cegtgtetae taaaaataca aaattageca 84720 gggtggtggc gcatgcctgt aatgccagct acttgggagg ctgaagcagg agaatcgctt 84780 84840 84900 84960

### -164 of 185-

ctcagtctcg gctcactgca acctctgtct cccaggttta atcgattctc ctgcctcagc 85020 ctcccaagta gctgggatta cccatgcccc accatgcccg gctaattttt gtatttttag 85080 tagaaacggg gcttcaccat gttaggctgg tcttgaaccc ctgacctcaa gtgggcctcc 85140 cacctoggec teccaaagtg ccaggattac aggcatgage caccgeggec agccagaaat 85200 gggttttgga aaaagcacta aacaaaatcg aacttggttt catatgacag ctctgctgct 85260 aactgtaaca ggggcagacc agttaaccta cttttctgtc ttctgtcagc tgagaattag 85320 atgattccca aaggcccatt gaactctgaa tgactttaaa tacttcttct taagtgggta 85380 cacggttttg gtaactgatg ccaggtgatg aatgcatgaa agtgcttaat gaatgaaacc 85440 ggtaaaatag taggaggaag ctttattggt aaggcagggg tatacctaat agctctctaa tttattggta ttgaagtggt taacttttgt ttttttaagg ggggaaaaca ttctaagaat aatgaggcaa actgcatatt gcacaagaga ctgttgtctc tattcaacaa ataccttttg 85500 85560 85620 agtgtccaga gtctgccagg tgctgtgcta ggccctcacg attgagtagt gaaccagaga 85680 atgtccctgc acccatggag cttattgtct actggggtag acagataata aataagcaaa 85740 caaatcttct ctcttctccc tttcgctcca tgtaagtgtg tgtgtatagg tgtatactta 85800 caagttgagt aaagtgttat gaaagattaa gaggagaaat gcattttggt tagatgttag 85860 aggactcagc aggtgacctt gaaacttaga gctgaaggat cagtaggagg taactagaga 85920 ggccagggaa tcgcatgttc aaaggccagg aggcaagaaa gagcatggtg cccttcaaga gaggaaagaa ggctactgtg actggagcat agatgtaggc aagtgttggg tgattgagag 85980 86040 ctctacgggc catggttagg ttttattcct aatgccgaga tgccaaacat ggtggttcat 86100 atctgtaatc ccagtatttt aggaggccga ggcaggaata tagcttgaac ccaggagttc aagaccagcc tgagcaacat gagacctgta caaaacattt aaaaaattgc tgggtatgat 86160 86220 ggtgcacacc tgtggtccca gctactcagg aggctgaggc agaaggatca cttgagccta 86280 ggaggtggag gctacaatga gccatatttg agtcactaca ctccagcctg gatgacaaag tgagaccatg tgtcaaacaa aatacagaaa gaatattaat ttaaaatttt gaaagaggag 86340 86400 tgatctgaac ttatatctta aaaagatcat tctagggcat ggtggctcat gcctgtaatc 86460 aagggetttg ggaggetgag acaggaggat cacetgagge cagttegaga teaacetgta cageatagag agaeteeate tetacaaaaa gaaaaaataa atagetgggt gttgtgagtt 86520 86580 attcaggagg ctgaagcaga aagatcactt gagcccagga gtttgaggct gcagtaagct atgatcccac cactgcaaca cagtgagatc ttgtctcaaa aaaaaaaaa aatcattcta 86640 86700 ggtgcttttt ggaggctgga tgtggtaaga gtagaagctg gagatggtcc tgttagggat tcgattcaga ctttaaatac catcaatgca ttgagtcca aatttacatc actacgttgg atccttgccc ctgaatccag actggtatat ccaactttag gttcagtttg tatctctacc 86760 86820 86880 tgaccaatat agaggtgtcc agtcttttgg cttccctagg ccacattgga agaagaattg tcttgagcca cacatagagt acactaacgc taacaatagc agatgagcta aaaaaaaatc 86940 87000 gcaaaactta taatgtttta agaaagttta cgaatttgtg ttgggcacat tcagagccat 87060 cctgggccgc gggatggaca agcttaatcc agtagatacc ttcaacttac aatatctaaa 87120 attitatgcc agattiagtc attitaaacc tgctcatcag tittitctcaa gaagtagtat tittggctitt titctitct tittitgag atggagtitc gctcttatcg ticaagctgg 87180 87240 agtgeagtgg eggatettgg eteaetgeaa eeteegeete etgggtteaa gtgattetee 87300 tgcctcagcc tcgcaagtag ctggaattac aggcatgcgc caccatgacc agctaatttt tggagacagg gtttcaccat gttggtcagg ctggttttgt actcctgacc tcaggtgatc tgcctgcctc ggcctccaa aggctgggat tacaggcatg agccaccgct cccggctgca 87360 87420 87480 tttttggatt tttagttgct cagcccaaaa ctttagtaca tctttgaacc tcttctttcc 87540 toctactota tatotgatoc atcagoaaat otgttaggto tacotcacao atatogaaat 87600 cctaccacgt ctcaccatct gtgacaatta acaccctggt ctaggcagtc atctctgtta agattgagtg gttaaggatg tcctctaagg agatgacatt caaatcttag cttaaatgtc 87660 87720 aagagggagc tggttttata aagattgagg aggcagcatt attttgccat aggcttccat 87780 ttggtttcca ttccattctt gatacttatg gtatatattc aaaacaaatg cacagaaaca gacccaggta tattgggaat ttcggatata gagttcctag ttgggaaaag atagactgat 87840 87900 ctgtaaatga tgctagttat ccatcatctg gcaaaaaata atttcctgcc tcctctcata 87960 tatctcagat caacagactt tttctgttaa gggccaaatc ataaatattt taggctttcc agaccatatg gtttctgtca cactctcctt tatccttgaa gccatagaca atatgtaaac 88020 88080 aaatgggcat ggctgtgcta cgataaaact ttacttacaa aaactggtag tgggccagtt 88140 taggcatggc cagcactttg ggaggctaag gcagatggat cacttggggt caggagtttg agaccagcct ggccaacatg gtgaaaccct gtctctacta aaaatacaaa aaatagctgg 88200 88260 gcatggtggt gggtgtctat aattccagct actctggagg ctaagacaca agaatcactt 88320 88380 88440 tagtttgcca atccctgatg cagaaacaaa ttccaggtaa ataagagcct ggaatgttaa 88500 aaaaacaaaa cttgaagtca tgtagaagaa caggtagggg gaacaatcct gatctcagga taggaaggga tattgcttaa aataagacac aggaaaatat aatccatgtt gtgtaaattt 88560 88620 88680 gactacgtta aaacttaaaa ctttcgccaa gcgcggtggc tcacgcctgt aataccagta ctttgggagg ccgaggtgag cagatcacca ggtcaggaga ttgagaccat cctggctaac 88740

# -165 of 185-

acggtgaaac	cccatctcta	ctaaaaatac	aaaacattac	ccaaacataa	taacaaaaaa	88800
ctataataa	e acctacttco	gaggctgagg	caccaccag	ccgggcgcgg	2992999292	88860
acttageece	. agetaetegg	gaggeegagg	caggagaacg	gcccgaaccc	gggaggcgaa	
		gcgccactgc				88920
grereaaaaa	aacaaaacaa	aacaaagcaa	aaaacctaaa	actttcatac	aataaagtat	88980
acctaagata	cttctagaag	agaagattta	catccaggac	gtgtatggaa	tttctgcaag	89040
taataagtaa	. aagacaaggg	acatgaagag	gcagttcaca	aaagaggaag	ccaaaatgac	89100
caataaacat	gaaaggatgt	ttaacctcaa	aggaaacaag	gaaatgaatt	aaaaacatca	89160
aatgccattt	caaaactagt	aagttggcaa	aattaaaaat	accaaggatg	agaatatgaa	89220
gcatggctat	atgagtgcat	ggaatggtac	agtcactttc	attaaaaatg	cacataattt	89280
gttttttatt	tattttttg	agacagtcta	tgtcgcccaq	gctagaatgc	agtggcatga	89340
tctcggctca	ccacaatctc	tgcctcctgg	gttcaagcaa	tteteetace	tcagcctcct	89400
gagtagctgg	gattacagge	acatgccaca	acacccaatt	aagttttgta	tttttagtag	89460
agacagggtt	ttaccatatt	ggccaggctg	gtctcgaact	cctgacctca	aataaactac	89520
ttcccaaagt	actaggatta	gaggcgtgag	ccaatgctcc	taactaaaaa	aaatgcacat	89580
aatttottac	ctaggaatte	catgtctaga	ggcttatcct	agagaaattc	ttacttatat	89640
gcataggaag	acototacta	gaatgttcac	tagttgaatg	tttaagtgaa	aattaggaaa	89700
taaaqtaaat	attattaac	aggaaaatga	ataaaaatat	atttataa	aattaggaaa	
gctaaatg	ataaactaca	aggaaaacga	tassatsass	atttataaaa	caattaagta	89760
gottaaaatga	tanataana	gctgcgtgaa	cyaactagaa	ctggttcaat	agreatgrea	89820
gattattgaa	Lyaatacagg	tcagatatgt	acagagegee	atttgtgtaa	ttaattttt	89880
	gagatggagt	ctcactctgt	Egeceagget	ggagtgcagt	ggcgtgatct	89940
cageteaetg	caacctccac	ctcctgggtt	aaagtgattc	tectgeetea	gcctcccgag	90000
tagttgggat	tacaggcatg	caccaccatg	cccagctcat	tttcctattt	ttagtggcca	90060
cagggtttca	ccatgttggc	caggctggtc	ttgaactcct	gacctcaagt	gttccaccca	90120
acttggcctc	ccaaagtgct	aggattacag	gcgtgagcca	ccgtgctcag	ccatttgcgt	90180
gatttttaaa	gatgtgcaga	ataatgccat	taaaaaaaat	acacatacat	gtatatatat	90240
acacgtttgg	ctgggtgtgg	tggctcacac	ctgtaatccc	agcactttgg	gaggctgagg	90300
caggaggatc	acttgagccc	aggtgtacaa	gactagcctg	ggcgagatag	caaqacccca	90360
tctcaacaac	agaaaggata	attaggtatg	gtggcatgag	aggatcactt	gagcccagga	90420
gttcgagtgt	tatcaggcca	ctgcactcta	gcctggacaa	caaaqcaaqa	ccatatetea	90480
aaaaaataaa	aataaaaagt	atttgtatgt	ggtcatagtc	aaaaaacgta	catggaagga	90540
aaatgtcttt	atttatttat	ttatttttt	ttttttaaga	cagagtetta	ctctgtcacc	90600
caggetgggg	tacagtggtg	taatctcagc	tcaccocaat	ctcaacetee	cagattcaaa	90660
cgattcttct	gcctcagcct	tctaagtagc	tgggactaca	ggtaccccc	accacaccct	90720
gctaattett	atattttcaa	tagagacagg	gtttcaccat	gttggcaagg	ctggtctcga	90780
actcctgacc	ttaagtgagc	cacccgcctt	ggcctcccaa	agtectagga	ttacacctct	90840
gagccactgc	acttaaccaa	gaaatatcta	atttagtaag	tatttatatc	taaaaaaaa	90900
agggtcaggt	gataattcat	aggaactcta	aectagaag	ataataatta	caddagaa	90960
aggaaataaa	ggegaeteat	gatatttgat	tattaratta	totatatat	gggggacaga	
cataggagat	ctaattaata	gtaggagaat	ctttttacet	catacacaca	agaagtataa	91020
catttattt	ccgactgaca	taaattaata	stagge	ggtaaaagtg	gaacegege	91080
ggcccgccc	ggcagcagaa	tcagttggtc	acageeegea	tgtggaaggt	aacaacaga	91140
ccatgitaag	gatgacttcc	ggaattttgg	cetgagtagt	gggtggatga	cagtgtcatt	91200
catgagggaa	gatgaagact	gaggtaggaa	caggtttggg	agaagatgac	atgttccctt	91260
ttagacaagt	ggaattatgg	aagatggcag	gtaggtggtt	agctatatga	atttgagata	91320
aaagatttag	gatggagata	taaatttagg	agtaacagcg	tatctatggt	attgtaagcc	91380
ttaagaatgg	gtaggatcag	ccaggaaata	cagatgtata	tgcagaagag	aggagtcaag	91440
gaagccaaga	caagttaatg	tttaaagtga	gtgatgtagt	ccatgggcag	atgctgctga	91500
gagggctgca	aacaccagtg	accctacaac	atttttaaat	gtcgtcttcc	tgacagcagt	91560
gatcagtacc	tgcaacgatc	ttatttattt	ttttcatqtt	agtetecaca	cacttgaatg.	91620
tagacttttt	gaaggcaaaa	tcattgcctt	ttctgagctg	ggagcatgtc	toocacatac	91680
caagcactca	acagttgatg	tattgacttc	atccagatac	tctgagggg	agttatttcc	91740
tgctactagc	ctttcacctt	tcaatgttta	agagcacaaa	tacagagatg	ggcacgtttt	91800
ggcatttctt	attttgataa	ccttttcctg	gtaagatttt	ttaatottoa	aaaaaaaaaa	91860
caaqaaaaaa	gggttaaaaa	tagtcttatg	tcagatcctg	tgatagaatt	cacacttooc	91920
ttaagctgct	gggcaccttc	ctatcttgga	totcatatta	acttatata	accacaaattt	91980
+++		~~~~		<del></del>		71700
						•

#### -166 of 185-

ctagttactc ttctaagccc cttacaggta tatatttttt ttcatcaata atcctctaag 92580 gtagttttta ttattgacct aattttataa atcaagaaaa ttaagaccca gagaagtaag 92640 taacttgtcc aagatcacat ggcttataag tggtagagcc agaatttgac cccagatgtt 92700 gtgactacat tgtctctcca taagcaggtt caactctttt gactggatgc tgttccaagg 92760 tcacttcctt agagaagcct ttgctgacaa ctaccctcct gtgccctcct ccaaggctgt ccattgttct agaactttga atactcatct tagaataaag ctggtctaat ttttacagtg 92820 92880 ttatagaatg gatetetgae tgeaaaagtt ggteataatt atettttat gttetagtga 92940 aaggcaaaga acaagagaag acctcagatg tgaagtccat taaaggtaag ttctgcctt ggcagtccac tgcattaaaa agtgatgtgc tttgcatttg tgagttcttt aatcctgtta 93000 93060 tactctctct tttggcatta atcatttctg ccttatttta taattactta tgattttgat ttatttccct ctttaacctg tataatgctt taacatctag catataataa gtaggctttt 93120 93180 ttttttttt ttttttgga gacggagtct tgctctgtta cccaggctgg agtgcagtgg 93240 cgcgatcttg gctcactgca agctctgtct cccgggttca caccattctc ctgcctcagc 93300 ctccccagca gctgggacta caggtgcacg gcgccacgcc tggctaattt tttgtatttt ttagtagaga cagagtttca ccatgttagc cagtatggtc tcgatctcct gaccttgtga 93360 93420 teegeeegee teggeeteee aaagtgetgg gattacaage gtgageeace geaceeggee gtaagtagge tttttttace ttaattttat ttttttgaga tggagtettg etettatee 93480 93540 caggotggag tgcagtggtg ccatctcggc tcactgcagc atccacctcc cgggttcaag 93600 cgattetect geeteageet ecegagtage tgggattaea ggtggeegee accatgeeea 93660 gctaattttt gtatttttag tagagacagg gtttcaccgt gttggccagg ccagtctcaa 93720 actectgace teaagtgate cactegeett ggeeteecaa agteetggga ttacaggegt gagecaccat geetggeeat aagtaggett ttactgagee ttgtgtgtat tggetateet 93780 93840 agtgattaca gtgaaccagt gcccttctta ttaatcacac atttaattgt tccctaaaag 93900 tgattagttc actttattta tttagtaaga caaaaaatga agaatactct taactgagca 93960 gtctgttaac tgtaggaaag cactgacact tataaggett agttttetgt catttateca gaagtatggt tgattacagt ttttactttt ttatttgaat gaacaacett aatttaaaat 94020 94080 atattttgtt tattttttgt tgggatcgat acattgtcct tgtttataga ttagagcatg 94140 ctttttaaag atgctgtatt actcactgat tttatttgtc cagtgtacag agattgaagt 94200 gggaaaatta taatggaaat tgtttccata gtcattacat attaatttca tcaatttatt 94260 tccataaaat ctgtagattg ctacttattt agatttttcc ttcaaatgtt tttatgttgt attgcttgca ctgagtattt attctatatg ctcaatttgc tggagaagaa gactaattat aacttaggca agttgtaaaa ttagggaaaa aagtaaggta ccttacagcc tagtttactt 94320 94380 94440 atttcttatg taaagccagt tagattccac attagttcaa actgccttct ttgagcaaaa cttgattggc agtgataaag gcttaaagcc cttctcaagc agagacctgt aaagactaga 94500 94560 tetgaetgta gtagaaggaa ggaaettaga tgttteagge agtgagaaca ceagtettee 94620 actetaaaet tigecaetaa eagtaigace tigggaagit glaaciitet teagaitett 94680 catttgttga atggggggat tggcctagct aatttctaaa tctctactgg gctaaaaaat 94740 tetgtgetta tactetgatt atgaagtaca taatetgtge ttaacattca etgaettate 94800 cttaggataa tacagaagca gtacaagaaa cagcccctca agatgtttgc agtctggtta 94860 gaaagacaaa cttatacaca gaacagtagc aaatagacca aaataataat agctgccatt 94920 tatagaacac ttettetgtt etgggeatta gacaaaact gactataacg gtgaacaaaa 94980 aagacttagg teetgeeete attgaaetta cagattagta ggggagagga acattaatea 95040 agtaattoca cagatggott agootagatt ggtagtgatg gaagtaaaga gatgtgaacg 95100 gacttgaaaa aaaattcgga ggcaaaatgg atagaagttt attattgatt aaatatgagg 95160 tgtgagagag agggatattt aagattgata cctaccttct ggcttgccta acagaaccaa 95220 aacaggaaat tatatgttca gttttgttat gttgggtggg aggtgctttt gagtcattca 95280 tttatatatg ttatatatgt tattttatat gcatagtaat tttaaggtct gagttttaaa ccaaaggtta gagagtgatt ttttagagtc tagcaaacct aagttgaaat cctgcctgtt 95340 95400 gaaatggctg tttactagct cattaaccta gggcaaagta ttcaacttgt tttcatttt 95460 95520 95580 95640 agtcatact trygtageta teattacta getteaata agcettage trygtageta agtcatact agtcatact trygtageta teattacta getteaata agcettage trygtagett catagett trygtagett agaatgagett trygtagett 95700 95760 95820 gatatattgg gcaaaggggc cttcagacaa gtagaggag atttttacag aaagattgag atgaaggtat agaaggctgt aaagaccaga aaagagaatt gagacagagg aagcaggaag ccactgtagg tttttgagca agatattgat gctgtaagta tggtgtttat gaaaggttag 95880 95940 96000 tetggaagag atttgcagga tggagacece ggaagttttt ttgttataat acagaaagae ttgcaetgag ggtgaggtgt taaaaataaa caggtaagta aatgtttaaa catettgaag 96060 96120 gaaaagtcaa caaatcttgg caagtaaaca gataacagtg aaaaagaatg ggaccaagat 96180 tttgagtttt ggagactggt ggattgaaca gacagggaaa ttgagaggag aatcagatga tgatgtttta agttgatatt tagacagatt gtgcttgaga tggtaaagtc aatgtgggtg 96240 96300

#### -167 of 185-

ggaatgetta gtagegagta atcagtgata caagaccaaa geecaggtea aagacaagte 96360 acagatacag atcagggctt tttcatctgc tccacagagg tgtaccctag gagctgttgc 96420 aaacagtcca tgtggagggt gtgagtaaga tgtttccctt gaatttgcca gaattacttt 96480 tttgttgttg ttgttgtttt ttctgagaca gattctcgct ctgttgccca ggctggaggg 96540 cagtggcgag atcgcgcagc tcactgcaac ctctgcctct cgggttcgag tgattctcct 96600 geeteageet eccaagtage tgggattaca ggettgtgee accaageeea getaatttet 96660 tttgtatttt tagtagagat ggggtttcac catgttggcc agactggtct cgaactcctg 96720 geetegtgat etgeetgeet cageetecaa aagttetggg attacaggeg tgaaccaetg 96780 cacceggice etigttaagt ttattttggt gggaagcaaa ggaggtttca gettttaaaa 96840 agtttgaaaa ttattgetet ggtaataatt aaagatttga gagtaaatat getttetage 96900 agaaagaata aaagaagaac agatagcctc aagaagggga gccaaagaag caggctatat 96960 ctgacacact gggtgttgat aaatgggtat taaaagaatg agagcaatga gcagatagaa 97020 gaggaaatta ggagagtata ataccatgga gaccaagaaa gatagactat caggaaggag 97080 tggtaaaaat aagttactag ttctaagaga gatgttaaga gggaccgggg aaagccttgt acaaatgagt tagtagcatt ttacattata tacatctaat taagaaacaa tgcgagagtc 97140 97200 teaceattee tatagaetet taettgtaet tgtetgaaca egaaaaetgg ettitgtita 97260 taaataaget aaaaattatt ttgeteeaat tteteatgaa aataaaaata aacettettt taacattgaa aaaatagttt gaagacagte aetetteatt ttgtaattee cacaactatt 97320 97380 attgaatgac tgaaattatc tttattctga agccaaaggg gtgatactga tatttcttca 97440 gactactaaa aatatattt atgaattttt agtgtgcttt atctttttt gttttttt 97500 ttgagatgga gtttcactcc cgttgctcag gctggagggc agtggtgcaa tctcagctca ctgcaacctt cgcctccag attcaagcaa ttctcctgcc tcggtctccc aagtagctgg gattacaggc acctgcccc acacccagct aattttttgt atttttagta gagacagggt 97560 97620 97680 ttcaccatgt tggtcagget ggtcttgaac teetgacete aggtgateca eccacettgg 97740 cctcccaaag tactgcgatt gcaggcatga gccaccatgc ctggcctgag gaatattttt ctaggttccc cccaccccaa gcatttattc tgcaatttta gttttgttcc taaagcaagc 97800 97860 aaggtttaag gatttaaaaa taatccgtat tttagaatgc tttctggctt tgttactttt 97920 tatccacagt agaagttctc agagaatgat ctccctcttt taatttaact ttttggcaca 97980 gtattttgag aattataaat aatattagaa tgttttctgg ctgggtgtgg tggctcatgc 98040 ctgtaatcct ggctacttgg gaggctgagg caggagaatc acttgaacat gggaggcaga ggttgcagtg agccgaggtc atgccactgc actccagcct gggtgacaga gcaagactct gtctgggaaa aaaaaaaaa aaaaaaagg tgttttcttt cctattttcc accacttgat 98100 98160 98220 taagttactt ttcctcttaa gtattttttg ctgagtatgc tgacttaaga gtaatgttac aaaatttaat ttttaaagtt ctctgaaagc ccctttatga gagttttagg ctatcaaatt 98280 98340 gtgtttaatt cttaacaatt ttttgaaaaa ttatagette aatateegta catteeceae 98400 98460 98520 98580 98640 ctatataatt ggaaagtgct ttggaaaaaa tgtatttaaa ataacagcta caagtataat 98700 gggtagetgt gttgtgttee tgtaaatata gaatataaag catgeecagt agaaaaacaa 98760 gcatttccag aagaaatata totgatcact aaatataaat atatgaaaaa gatgtotcac 98820 tttattactg agggaagtgc aaattaaaat aatcagttaa tgttctccta acacattagc 98880 atatttttta aagtttgaca atttgaatgt cagtgaagat gcagggaaat acccctccta 98940 tttagtgata atataatetg gtgaagaete tttggaaage aatttggaaa teagtataaa atatgeatgt catttaggee actetteta agaeetagee etcagatatg etcatteata 99000 99060 99120 tatgtatgta tgtatgttga aggctattca ttatagtatt gtttgtgata gcaaaaaatt atggacaaca tataaatatc tgttataggg aaataaccaa attgtggtat acgcatgctc 99180 99240 tggagtataa tatagccatt tgtttctatt tatttatttt cttgagacag ggttttactc 99300 tgttgcccag gctggagtgc agtggtatga tcatggttca ctgcagcctt cacctcctgg 99360 gcacaagcca ttctctcgcc tcagcctcca gagttactag gactgcaggc atgtgtcacc acacccagat aatttttaa ttttttgtag agacagggtc tcactatgtt gcctaagctg gtctcaaact cctggcctca agcaattctc ccacacaggc ctcccaaagt gctgggatta 99420 99480 99540 ccaacgtgaa ccaccacacc tggttcagtg tagccattta gaaatctaaa aaagacgtgg 99600 gaaaatgtct aaggcatgtt taaatgtgag aaaagcaagt cacagtatgc atggtaaaat ccgttatatt aaaataagtt cttccaaaac aaaaacatat gcaggagacc tttattttgt cagtatttct tacccaaatt tctgcactta gaaaattgca tgtcatgttg tcataagttg 99660 99720 99780 aaaaaaagat ccatgaacca atggacttct aataaaatca gtcctgcttt tgacatctct 99840 ctctactitt gtgtatattc aaaccagagt gtcaatgtgt itgtggggca cacttagcaa 99900 taatacatag cagacaaaat gcatatagct cagagagtaa aattgtaagt tttgctagat 99960 cactcataaa ttgctgatga gaatttaaaa tggtgcagat gctctggaaa acaggcagtt tetttettte tttttttt tetttttgag acagggtete actctgttgc gcaggetgga 100020 100080

### -168 of 185~

gtacagtggc gtgattacaa ctcactgcag cctcaccctc ctcaggttca ggtgatcctc 100140 cctcagtctc ctgagtagct gggactatag gcatgcacca ccacgcctgg ctaatttttg 100200 tattttttt tttttttt gtagagacgg ggtttcgcca tgtttcccag gctggtctca aactcctgga atcaagcgat ccacttgcgt aggcctccca aagtgctggg attacgggcg 100260 100320 tgagctactg tgcctggcct aggcagtttg tttgtttgtt tgtttgtttg tttatttatt 100380 tgtagacgga gtctcacagg ctggagtgca gtggcccaat ttttggctca ctgcaacctc cgcctcccag gttcaagcta ttctcctgcc tcagcctcct gagtagctgg gatgacaggt gcctgccata atgcctggct gatttttgta tatttagtag atatggggtt tcaccatgtt 100440 100500 100560 ggtcaggetg gttttgaact cetgacetca ggtgatcage eegectegge eteccaaagt getgggatta caggeatgag eegtcateee tggetggtgg tttettatga egtgaaacat 100620 100680 gcaattacca tatgacctag cagttgcact ctgtatttat cccagataaa tgaaaactta 100740 cettecaata aaaacetgtg cacaaatgtt catageaget taatattgaa aaactggatg 100800 ttcttcagca ggtgaatgaa ctggttcatt cataccatgg aataccattc agcaataaaa 100860 aggaacaaac tgttgataca tttaaccacc tggatgaata tcaagggaat tatgctgtca 100920 gacaaaaacc agtccctaaa gactacatat agtatgattc cgtttggata atattcttga 100980 aatagagaaa ttaagagaaa tgaaaagatt agtgtttgcc agatgttaga gacagggagg 101040 tgagaggggt aagtgggtgt agttataaaa gtgcaacatg agggatcttt gtgatgttga agttgtatct tggcagtgga tgcagaaatc tcaatgtgat aaaattacaa agaactaaaa 101100 101160 acaagaatga gtatagataa aactggggaa atctgaacaa gttagagtgt tgtatcactg 101220 tcagtatctt agagtgatat tgtactatag ctttgcaaga tgttaccatg ggagaaacta aagtgtacaa gggatctcta ggtattatta tttttttaga gatggggttt cactatgttc cccaggccgg tcttgaactc ctgggctcta gtgatccgcc tgccccagcc tcctaaagta 101280 101340 101400 ctggaattac aggcgtgagc gaccatgcct ggccctttca gtattgtatc ttagaacttc atgtgaatct agcattatct catagaattt aattaaaaga aattgtaaac ctcacagaag 101460 101520 atcagaattt cctcaagttt gtgatgttga caaagatgaa ctagttgaca ctgacagtaa 101580 gactgaggat gaagacacga cgtgcttcaa aaaaatgatt tgaatatcaa tggattaaga 101640 agaactcttt tgacaaattg atgaaaccct cagtcagttt tataagaatg cccatcttta 101700 tgatcatgct atgaaagcca atttttaaaa aaattttttg tctttcctaa caattagctt 101760 gtggttataa tttaaattta gttaaatata agataaatga ttttttatta agtttagttt 101820 catttttcaa ggtacgatct caaagctact ctttaaccta ctatgaatga ataatgctga 101880 gttcataaca tctttgtaga tatatccaca attttccctc aggataagtg cctacaagtg 101940 gaattactgg actgaaaata atgcagtttg ctaagacttt gctatctgtt cctgaatgct 102000 cctccaaaaa ggttttgcca gtttacatcc tcatgaccag cgaatgagag tgttgcctat. 102060 tttcctgtgc ccttgttact gcttaataat ttttgaaaaa aatctaattt gacagacaaa aatgcatttt atgttaattt gcttttctgg gatttttaat gaggttgagt atagtttta 102120 102180 atatttttat tggccccttt ggaactagta tcataagttt tttttcttaa gaatttatgt 102240 agtotgggot gggcgcagtg gctcacgcot gcaatcccag cactttggga ggccgaggtg ggtggattgc cgaaggtcag gagtttgaga ccatcctgac caacatggtg aaaccgaatctctactaaaa gtacaaaaac tagctcagcg tggtggcggg tgcctgtaat cccagctact 102300 102360 102420 taggaggetg agtcaagaga ategettgaa ecegggaggt ggaggttggt tgeattgage egagategeg ecattgetet ecagectagg caacaagagt gaaaagtete aaaaaaaaa aaaaaaaaaa aaaaaagaat ttacatggte tgaattgeea ttaaaagaga tatgagaatt attgagtaac aaataacttt ttaataattt aggeaagttt tggacgattg tactttgttt 102480 102540 102600 102660 agaaaccaaa agcatagtat ttgtagtttt tttatttact ttagttgcta ggaagtaaac 102720 tttattcaag gtctctggta ccagttgttg ctaaaagtga ttgactaatc tgtcaatctg aaattatttg ttgctgaact gctaattett ttgcttctat cttttaggca gatcttgtct 102780 102840 ggactaccag actcaagaga ccaaatcaag cctttctaag acccttgaac aagtcttgca 102900 cgacactatt gtcctccctt acttcattca attcatggaa cttcggcgaa tggagcattt ggtgaaattt tggttagagg ctgaaagttt tcattcaaca acttggtcgc gaataagagc acacagtcta aacacagtga agcagagctc actggctgag cctgtctctc catctaaaaa 102960 103020 103080 gcatgaaact acagcgtctt tittaactga ttctcttgat aagagattgg aggattctgg 103140 ctcagcacag ttgtttatga ctcattcaga aggaattgac ctgaataata gaactaacag 103200 cacteagaat cacttgetge ttteccagga atgtgacagt geceattete teegtettga 103260 aatggccaga gcaggaactc accaagtttc catggaaacc caagaatctt cctctacact tacagtagcc agtagaaata gtcccgcttc tccactaaaa gaattgtcag gaaaactaat gaaaagtgag tatgtgattt tcttgtgtgt acatatgtgt ctcactttct ttttttaatt 103320 103380 103440 tactaagcag aacttcagat gaggaataaa atgattggaa tattttttt ctcctctaac tacttgtaaa tttgggagaa tttggagagt gtagtagagt cagatcagtg tatggaaaag 103500 103560 gagcaggagt gactggacct tctaagaagt gtgttatcag aattagtaaa tgaagggtca 103620 aatgtcctac ttttcccctc cactgatttt gacatcaaac cattatccac atagccttat ttcctccctc ggtcttaatt ttattaatat tttactgcac tttgcagata aaatttttaa 103680 103740 aaaattttta aaaattgcca ataagtgaca tttattaagt tcagtgctta gtgtatattt 103800 ggattttatt tattagtcac aagacctttg tgcaggtagt aggcatgatt atctttttt 103860

### -169 of 185-

ttttgagatg gagtettget etgtegeeca ggetggagtg caatggegeg gteteggete 103920 actgcaacct ccgggttcat gccattctcc tgcctcagcc tcccaaatag ctgggactac 103980 aggegeetge caccacacce ggetaatttt titgtatttt tagtagagac ggggttteac 104040 catgiting aggatggiet egatetectg actitiquat concetecet egacetecea 104100 aagtgetggg attacaggea tgagecaceg egeceggact gattatetta tttacacatg 104160 agaaaaccag ggcttagaaa ggttaggtaa cttcctctag gttgtacagt aaatgtggac ctagaagcat tttgacaaga gcacctgttt ttttttcttc tctattagtt tagaaattat 104220 104280 atactettaa ttateacetg ggattttgat tagacageet teatgttett ttteatetta 104340 aatgttcttt gtgtcttaaa gggctaagtg atttcttcag atcttttagt tcactcattc 104400 tcagtgaact aaaatgaggt ctaatctgct actgaatcaa gttttcagca tgttatttcc 104460 ttectecte cetecetect teettecete aaccaggete cegaggaget gggattacag 104520 gegecegeea ceaeteetgg etaattitta tattitagta gagaeggggt ticaceatgi 104580 tggtcaggct gatcttgaac tcctgacctc aagtgaccca cctgcctcgg cctcccaaag 104640 tgctgggatt acaggcatga atcaccacac ctgacggcat gttattttca tcgcaaagtt actgtaagct gggagaagtg gcacacactt gtactccag ctactcagga agcttaaggt 104700 104760 gagaagattg cttgagccca ggagttttga gaccaacctg ggcaacacag caagacccca gctcaaacaa agaaaaaaag ttattgaatt ttttatttct atggatcatt ttttgtagtt 104820 104880 tottattoct ttcaccottc attoccactt ttgatcocat cttttattta tttagtttta 104940 ttaaatgtat atttgtctga taattctgct atctacagtt ttttgtggac ctgactcagc 105000 atttettigt ttetteggat teagactgtt ggtggettgt gattttagtg atttttggee gtgaacatgt ttettggact tttgtetgtg ggaattetet gtgtaetetg tataaattaa 105060 105120 gttacttcag gtgttttgca ttttcttttg ccatgacct ggggcctggg tcactaccttctggtacca cttaaaactg aatttttgtc ttgggtgctc gtactgatcc tgtatgagta 105180 105240 caggittata citacigtag aaataiggig titgattaig gggtatigte ccagaiggig ciggagiatt aataigcict cigitaaact taatgigtig teecigiaaa acteeaaaat 105300 105360 totgaattoo agaatactao tggccccaaa tgtttaagat aagggcactg cotgtatttg 105420 tttctgcctc ccactatttt ccttagttta acacaaactc acctttttaa aaaacatttt 105480 gagagaatte agtattggga agagtteta acctgttet ggaaatggaa gtccaaagte tgttetgta attgttttt ttttgagatg gagteteact etgteacea ggetggagtg caatgaegta eteteagete actgcaacet ecaceteeeg ggtteaageg attetettge eteageece tgagtagetg ggattacagg tgeceacea eatgeetgge tgatttttgt atttttagaa gagatggggt ttegecatgt tggecaaget ggttetgaae teetgaett 105540 105600 105660 105720 105780 gtgatetgee caceteagee teecaaagtg etaggattat gtttetgtaa ttgtaataca 105840 tttattgttt ttagaaactg tctttgcttt agtggtaatt ttcaataaaa atagaaatag cagtggagtt attaaaagag cattagttac attttccct ttttcattat cttcaaatat 105900 105960 tatatatagt aagtttgacc tttttaaaat gtatacttgt atcagtttta acacatacat 106020 agattcctgt aactgtcacc actataaggg taaagaacag ttagttcctt cacctttgaa gtcaagcccc acctctatcc caacacttgg caaccgctga tctttctccg tctcaatagc tttgcctttt ctctttttt ttcttattt tttttttgag acagcgtctt gctctgtcgc 106080 106140 106200 ccgagctgga gtgcagtgag gcaatctcgg ctcactgcaa cctccgcctc ctgggttcaa gcagttctcc tgccttagcc tccctagtag ctgggattat aggcacgcac caccacacc 106260 106320 ggctgatttt tttgtatttt tagtagaaat ggggtttcac catgttggcc aggctggtct 106380 caaactettg accteaagtg atceacetge eteggeetee caaagtgetg ggattacagg 106440 cgtgagccac tgtgcccaat caggactttt tttttttaaa tttacattca acttgtcatt 106500 tttttcttgt atggattgtg ccttcagagt cacacctaag agccctttgc ctaagcaaag gtcatgaaga ttttctcata tgtttccttt taaaagtatt gtggttggcc aggtgccatg 106560 106620 gettatgeet gtaateteag eactttgaga agetgaggtg ggeagattae gaggteagga gategagace atcetggeta atgeggtgaa acceeatete taetaaaaat acaaaaaaa 106680 106740 aaaaaaatta gccgggcgtg gtggcgggca cctgtagtcc cagctacttg agaggttgag 106800 gcaggagaat agtgtgaacc cgggaggtgg agcttgcagt gagccgagat cgcgccactg 106860 cactccagcc tgggcaacac agtgagactc catctcaaaa aaaaaaaaa agtattatgg ttttacactt tacgtttaga tatatatctt ttttgagtta atgtcgtata agtatgaggg 106920 106980 ttacgtcaga ttttttgttt tttgtttatt tttacatatg gatgtctagt tgttctaata ccatttgttg aaaagacaac ctttactcca ttgaattgcc tttgtacttt tgccatattt 107040 107100 gtctaggcct gtttttggac tcctttttct gtttcatgat gtgtgtgtct attcctttgt 107160 taataccaca tggtcttaat tactgtatag taagtcttaa aattgggtaa tgctggcctt 107220 ataaaacgaa ttgggaagtt tttattttta ctcttatttc cattttctag aagagattgt gtagaattgg tgtcatttct tctttagata tttggttgaa ttgggaagtg atgccatctg 107280 107340 ggcctagggt tttgtttttt gtgtgtgaga cagagtctca cttctgtcac ccaggttgga 107400 gtgcagtggt gagatcttgg cttactgcaa cctctgcctc ccaggttcaa gttatcctcc tgcctcagcc tcccaaatag ctgggattac aagcgtgtgc caccatgccc gactaatttt 107460 107520 tgtattttta atgcagacag ggtttcacca tgttagccaa gctggtctcg aacttgtgac ctcaagtgat tagcccacct tggcctccca aagtgttagg attatagatg tgagccaccg 107580 107640

# -170 of 185-

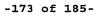
tacctaacaa	qqqcctaqqq	ttttctttt	cagagtattt	taaactatga	attcagatta	107700
			tgtttcttct			107760
			aattgtcaaa			107820
			tcttttattc			107880
			ttattagtct			107940
			tttattgatt			108000
			ttttactctt			108060
						108120
			acctttcttt			
			ttacacccc			108180
			ttgaatctta			108240
			ttggagactt			108300
			cagagaatat			108360
			tttaaaatgt			108420
			ttctataaat			108480
taatgatggt	gttcagtttt	tctttattct	tgctgatact	ttgtatgcag	ttatatcact	108540
			actacaattt			108600
agctctatct	ggttttgctt	catgtatttt	gaggctctgt	tgttaggtgt	gtacacattc -	108660
aggatgatat	cttctgggtg	aattgcctgt	tttatcatta	tgtaattccc	tctttatggt	108720
aattttcctt	gttctaagat	cagaaatatc	tgttgtccaa	tttatataga	cactgcaget	108780
			tttttccatt			108840
			aggcagcata			108900
			tattgagaca			108960
			taccacaacc			109020
			gggattacag			109080
			tttcaccatg			109140
			gcctcccaaa			109200
						109260
			tttaatcttt			
			tttagtataa			109320
			tataattatt			109380
			agattaccag			109440
			tttttttt			109500
			ttggagaggg			109560
			catgtgaaca			109620
			gtgtccctgg			109680
			aagcatctgt			109740
ccacccttaa	tccatttaac	cctgagtggt	aatagcacat	gtttcagaga	gcagggggtt	109800
gggggtaagg	ttatagatta	acagcatccc	aaggcagaag	aatttttctt	agtacagaac	109860
aaaatggagt	ctcccatgtc	tacttcttc	tacacagaca	cagtaacaat	ctgatctctc	109920
tttcttttcc	ccacatttcc	cccttttcta	ttcgacaaaa	ctgccatcgt	catcatggcc	109980
cgttctcaat	gagctgttgg	gtacacctcc	cagacggggt	ggcagctggg	cagaggggct	110040
cctcacttcc	cagatggggc	agccgggcag	aggcgccccc	cacctcccag	acggggcagt	110100
ggccgggcgg	aggcqccccc	cacctccctc	ccggatgggg	caactaacca	gacaaaaact	110160
			ctggccgggc			110220
			ggctgccccc			110280
caactaccaa	actgagggg	tcctcacttc	gcagaccggg	caactaccaa	acadadada	110340
			gagacgctcc			110400
caatcaaaca	gagacactcc	tcagttccca	gacggggtcg	caaccaaaca	gagggggtcc	110460
tcccatccca	agcadadada	cadadcadad	gtggtcccca	catctcagac	gatgggctgc	110520
caaacaaaa	cactcctcac	ttcctagacg	ggatggcagc	cacassasaa	tactectese	110580
ttcccagacg	agacaaccaa	rcagagggg	tcctcacatc	ccacaccatc	agagactaga	110640
cadagacgct	cctcacttcc	caascaaaat	ggcggccggg	ceasacatac	aatctcccca	110700
actocactoc	accetacas	cggccgggaa	gtggaggttg	cagggagetg	agaccacgcc	110760
acceptacec	ageeeggea	acattgagta	ttgagtgagc	gagaeteegt	etgeaateet	110820
ggcaccccgg	gaggeegagg	taggeagace	actcgcggtc	aggagetgga	gaccagcccg	110880
			aaaatgcaaa			110940
gegegeetge	aatcccaggc	actetgeagg	ctgaggcagg	agaatcaggc	agggaggttg	111000
			agcctcggct			111060
			cgagggagag			111120
			tatcttactt			111180
			ggactgcagg			111240
taatttttt	gtattttag	tagagacagg	gtttcaccat	attggccagg	ctggtcttga	111300
actcttgacc	tcaagtgatc	cacctgcctc	ggcctcccaa	agtgctggga	ttacaggcgt	111360
gagccaccat	gccctgcctt	tttctagaat	ttatatattg	agttcttgat	tgtatctttt	111420

### -171 of 185-

tatgtaggct ttttagtggc ttctctagga attacaatat acatactttt cacagtgtac 111480 tcacatttaa tattttgtaa cttcaagtgg aatgtagaaa acttaaccac cataaaaata 111540 gaactaggga tgaggttaaa aaagagagag aaaagaaatg taataaagat ttaataacac cgttttttt ttttttccc ttttttttt gagacagagt ctctctttct gttaccagge 111600 111660 tggagtgcag tggcgtgatc ttggctcact gcaacctccg cctcctgggt tcaagtgttt 111720 ctcctgcctc agcctactga gtagctggga ttacaggtgc gcgccaccat gcccagctaa tttttgtatt tttagtagag acggtttcac tgtgttggcc aggatggtct cgatttcttg 111780 111840 acettgtgat tegeteteet cageeteeca aagtgetggg attacaggeg tgageeaceg 111900 cgcccggcta agtctttaaa tatttttttg acattgcact ttttctttt tccttctagg attttagtaa cccaaatgtt agttttgtta ttgtttggca ggttcctgag gctttcctta 111960 112020 cttetttaaa tttttttte etgttgttea gettegaaaa tttetattea tetgtettea aatteaetgg ttettteeeg ttattteeat tetgttattg agtetttgta gtgaatttta aattttgtt attatgttt ttagttetaa aattteett ttttgtgtat gtettataet 112080 112140 112200 ttgctcctga aactettatt tgtttcagga gtgatettat ttettagage atggttttag 112260 tagctactta aaatttgttt tatcatccca gcatatgtgt cctcttgatt gtcttttctc 112320 ttgtgagata atgggatttt ctggttcttt atatgacaat taattttgga ttgtatcttg 112380 gacagtttga cttacgttac atgattctga atcttgttta aatcctgtgg aaaatattga agtttttgct ttaacaagca gttgacctag ttaggttcag tccacaaatt ctaagcagca 112440 112500 ttetgtegge tetggtteea teateagtte agttttgtat ettatetget tatgtgeett 112560 totgtgtoca gtotgggace tggccaatgg toaggtocca aagcotttgt acacttttag aagcagggoc atgcacace agctcacgag tggccccggg agtgcacata caactcgacg 112620 112680 ttttcatggg ctccttcttt tctgtgatgt ccctgacacg ttctgccttc taagaacctc 112740 cetttatece ttteetgttg tetggetaga aagteaggge tttagattee etataettea geacaettee tgtagetatg teaacetetg tggeeacgae ttettettet tgggaetgea 112800 112860 gtttetettg teagaaagta ggattettgg agetgetgte attgetgetg tggetgetet 112920 gatgetgeet gggagtegaa ggagagaaag gaacaaaaca aaacaaccca ggggatttee tecaetetet ttgateegtg agageeeeet tteetgttee teagaceaga aatagaggge 112980 113040 ctgtcttgga acttcttctt tgtgcatctg gtgtgcagtt tcagcttttg agtccaggcc aggaggtgct ggacaaactt gtcaggagta cggaggtact gcaagttctg attacttttc tcagtccacc tgcttccaag tccttggatg catttgtcca ttgttttgag ttgcattcca 113100 113160 113220 tgggagagac agaagagtgt gcttatttca tcttgacata cttattagga tttcatatca 113280 aatcaacgga tgatattoto tatattaatt tgctgttttc cctttagcaa gcacattagg aaaataacac tttaacacc gcctttggtg gtttctgtca taattattaa tacttgactt ttttttttt tttgagacgg agtctcactc tgtcctttga ggcattgtcc ccataaactt ttggtaaaagc atcaataatt ttatctttca tccacacaag cttcaccata aatttgatgt 113340 113400 113460 113520 ttattettee attttageag aatteatgtt geteeaatag gggetgtett caaactgatg tttteteett ettagtgeet eagagtagat eetgtteaga taegttataa eaggttaata tgagtttatt ttggtgtaaa agtaetttga aatteatgea tagttttte ateatagea 113580 113640 113700 ttttccatag ctttgaacac ccccatgtaa ctctcctctt ccacaaacca aacaatgaaa 113760 aagcaccttt gtgatggaag tttattttgc aataggaact cacagtgatc taagccctgc tattcatgaa tataattcat tactggagtc caagttgctt tttggttttt gaagttctct 113820 113880 tettecettg caggtataga acaagatgea gtgaataett ttaccaaata tatateteca 113940 gatgctgcta aaccaatacc aattacagaa gcaatgagaa atgacatcat aggtaagcag tgcttgaaac tatggcaaaa aaaaaatgac aaaaaatgca cagaactgac aattttcgtt 114000 114060 114120 attgactaag ataatttttt cttaacatgg aatttagcag ttcccttcct aatttgtttt ctgagtattt tttatatcgg attatagctc actttaaaag tttctcggct gcattcggtg cgagggtctt tgcctgggcc agatgggctg cagtgtagcg ggtgctcagg cctgcccgct 114180 114240 getgageage egggeeggeg ggeggetaeg etaaceggea cagaceaceg gatggaetgg 114300 ceggcagece egeaceagtg cacgaagtgg gegggacaga aacttetggg gttggaagte cagtgagget aaaageeggt accaaagtet etaggeatea gggetgeage ceaagagtet 114360 114420 cacgaccagt gggcaactgg atggccagac aggtgtctca gtggtggcct ctccgtctca 114480 gggcttcatc ccacttctca gtgggcctga cgtccctggg caccetggat gtctacctgc attagccaga gccatcacat ggcctgtgac ttgcctttt ttgccagttg attgtgccac 114540 114600 acacagtgic attictgigt cattiggcac agciggaggi gcaaggagga gggcagccic 114660 atgtccagtc ccagtttcac gtaactttat tcttctgaat aaagacaatt tgctaacctt 114720 aaaaaaaaaa aaaaaaaaaa agtttttctt atatgttgga cccaaattct taggctttaa 114780 cctgaataac aatgacagca agatcaataa atagtacaca tttattaaac actcactgtg 114840 tcccagacaa tattccaagc acttttatg gatagactca ttttaacttc taaagaactt tgtgggataa atacagttat tttatagatg aagaaactga agcacagaga agttaagtgc 114900 114960 tttgtccagg gtaacagete agatatggca gagtcaggat ttgaaactag accetcacat accetaactg etgtgctgtg gcagtgtttt tcatactgta ggttgggace agcettetet tatgccctca ccccctgcca aaaaaaaaaa aaaaaaaaa aaatatatat atatatat 115020 115080 115140 atatatatat atatatat aatatatata tatataaaat atatatatat ataaaatata 115200

## -172 of 185-

tgtattagta tatatgcata tatagtatat attatatt agtatatata ctaatatata 115260 atatacatat tagtgtgtgt atatatatat atactagaat aaaaaaatca aagtatctca 115320 gagtagtaag gacaaacatt tcagaaaaat gttttcatta tatatacatg tatgtatgtg 115380 tatgctgatt caacaaatat atttcttata ggttatagca aaatagtttg aaagctttta 115440 ctgtgtttta tcaggaagac cttaggtgaa cgtatattca cagataaaag aggttattta 115500 ttcattcaat aaatattaca ttctcataag tcctaatatt atgtattttt attcttcaaa 115560 aaagttagta tttgtgattt atgaaataag acatgttctt gcacttttag cagatctgtc 115620 cegatgtigg gettetttaa teettagtgi gggtgetttg cacteactea etgetgggga 115680 cagcaagacc cetgttagte teagetgtgt ttettaaatt ggeecaetgt acetteeagt tagetattet ggggteeatg teatgttgge teeattttee ttttettet eccaeaeaga 115740 115800 tacctataac ggctataaca taggcctggt ggctgttggt ggcttatccc tatctgcttg tatttaaggg gtactgttc actgagttt gctgacagat gttgtcatga gatttgaggt tttctgtgtt gttgctcat ttttatgtgg gaatttgcta ctatcatcat ccctagacca gcttttccta gtaatacaac agggatgttc tgactgatta gagtttgcct gtttgaagaa 115860 115920 115980 -116040 ttggttggct agtgattttt ttttgagggg agtctgtacc agttaatagc ctgactggcg tgtggataaa aaggaagcag tttcaagtca aataaaacac ttaaaatgaa accacactgc 116100 116160 aactetett ettitaetta agettaatea aattaatgat gatgtaatee eatgaaggaa 116220 aagtettetg aaggateaag ttgataacat tttgtgatea aagaatttga gaaaacetet atcccagtgt etateattat atattttagg atgttaatta eetgtgtgge tttaggeaag 116280 116340 tcatttttcc tccttgagcc ccattcttaa tcctgtccaa attatttgtc tcctcttgca 116400 gttggactat tttaatatag ctgtccttca agtgagtttt gttcaaagga gccttcactt 116460 tagetettae tgtgtaccea etttgcatag tettgtttta aatgtaatee ttggattttt 116520 ggtgttgcta actaattact gtttttatgt gaggatttag agtgatccag aatctatact tgcactacct ccttcatctt ccacaaatgt ttgaagtggt agaattttta aaaactttga 116580 116640 aggtacagct gacagaattt gctgatggtt tggaagtgag tggtatgaga gggaaaaaaa ggaataaagc atgactgcat tttttgtttg tttgtttgtt tgtttttgag acggagtctc actctggca ggctggagtg cagtggcgtg atcttggctc acggcaacct ccgcctcctg 116700 116760 116820 ggttcaagcg attcccctgc ctcagcctcc caagtagctg ggactacagg cgctcgccac 116880 cacgcctggc taatttttt ttttgtattt tagtagaaac ggggtttcac cgtgttggcc aggatggtct ccatctcctg acctcatgat ctactcacct tggcctccca aagtgctgag 116940 117000 gttacaggca tatatataag catataaagt gtgttatagc atacaaacag gtatatatat 117060 aaacatgcag tccacacagc tgataggaat gaggcagtag tgaaggagaa gttgatgtag gagaggggac agttgttaca ggaaagaagt ctggaggcag aagggatgaa ttccagtgct 117120 117180 cacatagaag attgcttaga tgggagcaag gacaatttat ctagagtcac aggaaagaat gcagtacacg ggtagagatg caggtgagtt gaaagatgtg agagatgatg gaaataattt tctgattgct tctatattct caaggaagca ggaagcaaag tcctcagcaa agagaataga 117240 117300 117360 117420 117480 etgteageta ceaattetge agatgattgt teagtgaaca ceaactgggt gteetetaag 117540 tcagttcagt tctcacactg tttacctgga gatagcatca gatcccacag attgaggact ctgtcccaca agactgcctc cacttcagat gccagtctca agtacaagtt gtggcctgtg 117600 117660 cttctgactg accttctata aattggagtt cccacagtcc cctccttggg ttcaataaat 117720 ttgctagagc agctctcaga actcagggaa atgctttaca tatatttacc catttattat 117780 aaaggatatt acaaaggata cagattgaac aggcagatgg aagagatgca tgggcaaggt 117840 atgggagagg ggcacagagc ttccatgcac tctccaggtc atgccaccct ccaagaacct ctacagattt agctattcag aagccccct ccccattctg tccttttggg ttttttgtgg agacttcatt atataggcat gattgatcat tggctattgg tgatcagctc aaccttcagc 117900 117960 118020 cccctcatcc cgggaggttg gtgggtaggg ctgaaagtcc caaacgtgta attctgcctt ggtctttctg gtgattagcc ctcatcctaa agctctttag aggccacagc cacaagtcat ctcattagcc ttcaaaagaa tccagagatt ccatgaattt taggcgctgt atgctaagaa 118080 118140 118200 actggctaaa ggccagttgc aatgtctcag gcctgtaatc ccagcacttt gggaggctga ggcaggagga tcgtttcagg ccatgagatc aaaaccagcc tggtcaacat agtgagaccc ccttacaaaa aatttaaaaa ttggccaggc gtaatagctc ttgtctgtag tctcagctac 118260 118320 118380 teagaagget gaggateaet gageeetgga gttgaaggea geagtgagee atgategtge 118440 cactgactcc ggcttgggtg acaaagtgag accttgtctc agaagaaaaa ggaaaaaaaa aaaactgggc aaagactaaa taacatattt cacagtatca cagatttgta ttgtctagga 118500 118560 aagtgaatgt aaacagacca ggacactagt atgatccctt ggtttcatga aggtcccact 118620 aaagtcatga acacaaagtg agactaggca tcatgttata tggtttttcc agccatgttt 118680 aacagctagc taaatagcta attgtttcgc tgcagtttat tttagcagtt ccttatttta 118740 gcacatttca tgttttaaaa tttctaccaa taacatttta ataaactttt ttacagataa 118800 cttcacaaat ccataatttt ttaagttaca atcccagaaa tagaattgct cattgaaagg 118860 gtatgttcat ttttaaagtt atgctagaaa ctgccaaatt gccttcagaa aaaggtgttt 118920 gtatccccac taacactagt gttagttttc ttgtgccctt gctcaagtat acatattatt 118980



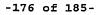
aaaaacaatg	ttgggccagt	ttactagata	aaaggtgtag	tgcctcctta	ttctaatcta	119040
tttgattact	agtgagtatg	tatgtctttt	cacgttggtc	attttatgtt	tgttcctttg	119100
tggattgtca	tgtcctttgc	tcatttttct	tttggaacat	ttcttagtag	tttataagag	119160
ctcttqqtat	tttaatgata	gtaacctttt	aactgtcatg	catqctqcaa	atctttttc	119220
	cctttgtatt					119280
	tcttttgatt					119340
	ttacctgtat					119400
	actcccaagt	_			_	119460
	ttacaactic					119520
	tcgttttggc					119580
	ttcacattgt			tcattgttag		119640
	aaaacaaagt					119700
	actctatctt					119760
	ttttcatttt					119820
ttctgaaata	atttggggag	tgattgagtc	tgtagtgatt	atgactatta	gaattggttt	119880
	ataatgcatg					119940
ctaaatggat	gctatataac	taaatccaca	tagatttgtt	gaaatggctd	cagaggtttt	120000
	tactgctatg					120060
	gtgctctgtg					120120
	aaaagacata					120180
	ggggagaact					120240
	aatgacacca					120300
atagggacag	tatggaaaga	gtatattttt	cccacttaaa	ctctttcctt	ggtcgttccc	120360
tcaaattttc	ccttttgtcc	atgtgcaggc	actttagtga	gtttctgcga	agtcaccatt	120420
tctgtaaata	ccagattgaa	gtgctgacca	gtggaactgt	ttacctggct	gacattctct	120480
tctgtgagtc	agccctcttt	tatttctctg	aggtaaagtc	tgcatttctt	ttcacactct	120540
attcgagcat	tccagcctct	aactatcaat	gctggggccc	tgtctatagg	aaataacaca	120600
gaagagccaa	gtcatttcca	aaaagatgta	tcattgtttc	aagttgtttc	tgatggcaag	120660
agtaatttaa	taatatatta	gagagaacat	gaaaattcaa	tgtattaaat	aactctaatt	120720
ttgagaaacc	taattaaact	actgcatgta	agagagtgca	tgtttttaat	tatttggagc	120780
	ccacagaatt					120840
	aaaagtagta					120900
	ccagtgaaga					120960
	tagtataatg					121020
	ctattaagta					121080
	cctctttaca					121140
	aagtttaaat					121200
	gatataaaat					121260
	aatccagttt					121320
	tagtgtttgt					121380
acttttcaat	ctcaaatgac	tgtaacttgc	tgacaggtgt	taacagaaga	agtagatett	.121440
tttgttttt	gcttatgacc	tgtattttaa	tatttgagct	tatagattag	agattgtgag	121500
agaaatctgt	ttatagtctt	attttccctt	gtgtatttt	tcttcctagt	acatggaaaa	121560
agaggatgca	gtgaatatct	tacaattctg	gttggcagca	gataacttcc	agteteaget	121620
	aagggccaat					121680
tgacaagtga	gttatattga	tagatggatt	cagcagatac	ttattgaaca	tttgatatgt	121740
	taaagatgaa					121800
	gcttttatat					121860
	aggggaggtg					121920
gtgtttccca	gaagagagat	tttgtttgga	tcccaaagaa	agaagggaat	tttgctaccc	121980
agagaaggca	gaaaacaaca	ttctaggcaa	aggcattggc	ccagaagcca	tggaaacgta	122040
ggggaaagtg	gcactttcaa	gaaacttgag	tttagataat	caaaggagtg	gggaataaat	122100
	tggtactaat					122160
	tttctgtata					122220
LICACEDAAA	at.gagaggat.	шолалиятия	гасаставас	aaaarraaaa_	ararcroofe_	122280



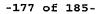
ctaatagtat ctaggccagt ggttcctgaa cattagtctg tgggctcttg ctgggctgtc 122820 tgcataggaa tcacctgaga gcttattaaa aataggtttt caggctggtt gcggtggctc 122880 acgcctataa tcccagcact ttgggaggct gaggcaggcg gattacttga ggtcaggcgt 122940 tcaagaccag cctggccaac atggtaaaac cccgtctcta ctaaaaatac aagaattagc 123000 caggcatgat ggcacacacc tgtaatccca gctactcagg aggctgagga aggagaattg ctcgagcccg ggaggtggag gttgcagtga gcggagatca tgccactgca ctccaggctg 123060 123120 gctgacagag ggagactctg tctcagaaaa aaaaaaaaa ataggttttc agtctgggta 123180 ccggtggctc acacctgtaa tcccagcact ttgggaggcc aaggcaggca gatcacttga 123240 ggtcaggagt ttgagaactg cctggccaac atagtgaaac cttgtctcta ctagaaacta 123300 caaaaaatta actgggcatt ttgacgggtg cctataatcc cagctactag ggaggctgag 123360 gcaggagaat tgcttgaacc cgggaggcag aggactgcat ctcaaaaaaa aaaaaaaaa aaaggtttcc agtccccctg tctcagaaat tctgattctg caggtttgag gtgtgaccag 123420 123480 gaatetttat ttttagaaga cataccagat aattetgata aatagecagt ttagggatgt 123540 agtctaattt teetattttg caagtaagga aaataaggee cagagaggta atgatttet caaagtcaca gaacaagtta gtggcagaat ttggactgga atgeagttet taatgttetg 123600 123660 tecagtettt atteteetae agtatette tagaagetat taeetaagaa acattettat 123720 atagatgttg agataggaag agtttacatt tagaaatttg gtctaaaatg cctgaacatt caagtcgtgg aggagtattg accaacttac tcaatacaac ataggagatt cacattttgt 123780 123840 tacaaaaatg ctgatttaaa aggagagttt tettttttt ettetttt atttttgag 123900 atggagtett getetgteac ecaggetaga gtgeagtgae acgateteag eteactgeaa ectecacete etgggtteaa geggttetee tgeeteagee teetgagtag etgggattae 123960 124020 aggtgggggc caccacgccc agctaatttt tgtattttta gtagagacag ggtttcacca 124080 tgttggccag gccggtcttg aactcctgac ctcaagtgat ccaccacca ctgcctccca 124140 aagtgctggg attataggcg tgagccactg tgcccagcct gcttgttttt gtatcatata 124200 tatgcatcat cataatcatg cattatcaac ctttgtattt ctgtcaggac atagaaacca 124260 ttagagtgct tggaagagag ccttttttt tttctcgcat ttaatqcttt ttttgqtatt 124320 catttcataa tcagcttacc aaaacattac ctgcattata ccccatcaag gtagaaatct 124380 ttgtgttatc aatattggtt actccctttc cacaccgagt catcagtaag tcctgttcta 124440 124500 124560 aagtteteag etegetttt agggaaaatg accatgtett cettteetat aaatteettt etatetatea agteeteaac agagaatagg tacceataaa tatgtgattg ttagttett 124620 124680 tgcctcagtt gtagtctgat ccttacagct tttaaacaac agtagagttc accgtcaaga 124740 actaaggatg gttggcaggc agatagaaag gtagcaagtt gacccaacta tctctgggga agtgggaaca aagaaaggtt acatcagcac tgtcatcaca tagctctata gttctaggcc 124800 124860 tgcaggetca atcaagtage ettgtataag attetetgga ggaggtgetg aaagttgett 124920 atacttgcta tggaatttga ttttacttcg gatatctttt taccataggt acttctccct ccaagccaca catcctcttg gatttgatga tgttgtacga ttagaaattg aatccaatat 124980 125040 ctgcagggaa ggtgggccac tccccaactg tttcacaact ccattacgtc aggcctggac 125100 aaccatggag aaggtaaccc agaacttcaa acgtatcaaa ctacaagaag tittattggt 125160 agaactcata aaatataagg tgggaaaacc aagcagaata gcacagtgga aattgaagca 125220 giccagcaaa gigattaaga gcagaggeet tgagtetgge etggtatgta cagtcaegtg 125280 ccacataaca ttttagtcaa cagtggactg cgtgtacgat ggtcctgtac gattataatg 125340 gatcaaagct ggtagtgcaa taataacaaa agttagaaaa aataaatttt aataagtaaa 125400 aaagaaaaaa gaaaaactaa aaagataaaa gaataaccaa gaacaaaaca aaaaaaatta 125460 taatggaget gaaaaatete tgttgeetea tatttaetgt actataettt taateattat 125520 tttagagtgc tccttctact tactaagaaa acagttaact gtaaaacagc ttcagacagg 125580 tccttcagga ggtttccaga aggaggcatt gttatcaaag gagatgacgg ctccatgcgt gttactgccc ctgaagacct tccagtggga caagatgtgg aggtgaaaga aagtgttatt 125640 125700 gatgatectg accetgtgta ggettagget aatgtgggtg tttgtettag tttttaacaa 125760 acaaatttaa aaagaaaaaa aaaattaaaa atagaaaaaa gcttataaaa taaggatata 125820 atgaaaatat ttttgtacag ctgtatatgt ttgtgtttta agctgttatg acaacagagt 125880 caaaaagcta aaaaaagtaa aacagttaaa aagttacagt aagctaattt attattaaag 125940 aaaaaaattt taaataaatt tagtgtagcc taagtgtaca gtgtaagtct acagtagtgt acaataatgt gctaggcctt cacattcact taccactcac tcgctgactc acccagagca 126000 126060 acttccagtc ttgcaagctc cattcatggt aagtgcccta tacagatgta ccattttta 126120 tettttatae tgtattttta etgtgeettt tetgtatttg tgtttaaata cacaaattet taccattgea atagtggeet acgatattea ttatagtaae atgtgataca ggtttgtage 126180 126240 ccaaaagcaa taggttgtac catatagcca aggggtgtag taggccatac catctaggtt 126300 tgtataagta cactctgtga tgttagcaca atggcaagca gcctaacgga aattctgttt attgattgat tgattgattg attgattgag acagagtttc actccattgt ccaggctgga 126360 126420 gtgcagttgc acagtcttgg cacactgcaa cttctgcctc ccaggttcaa ccaattatcc 126480 tgecteatee teccaagtag etgggattae aggeaggeae caccatacet ggetaatttt 126540



tgtattttag tagagacagg gtttcaccat tttggccagg ctgttctcga actcctgacc 126600 ttaagtgatc tgcctgcttt ggcctccgaa agtgctggga ttacaggcat gagctaccat 126660 gcctgggcag taactgaaat tctctaatgc cattttcctt atctgtaaag tgacgataat 126720 atgcacgttt acctcaaagt tactttgatg attaaagtaa ggtaatgtat ataaaataca 126780 tattaacata gtacctgaca catggtaagc atcaaaaaat gttaactact tttattacta 126840 ttattattac gtatttttaa ataattagag agcagtatca aaaattagct gggcgtagtg 126900 gcatgcacct atagttccag ctactcagga ggctgaagct ggaggattgc atgagcctgg gaattaaagg ctgcagtgag ccgtgttcat gcccctgcac tccagccttg gtgacagagc 126960 127020 aagaccctgt cttgaacaat taaagaaggc attatgccgc aacgttagct tagaaatgat 127080 ccacatatat caccagtaac tgtcaacagg attggaaccc tagttttggg tattatgatc acaaggtatt attaatagct tattaataat aaagggttgg ctaggcacgg cgactcacat ctgtaatccc agcactttgg gaggccgagg tgggtggatc acctgaggtc aggagtttga 127140 127200 127260 gaccagootg accaacatgg agaaacooca tototactaa aaatacaaaa ttagcogggo gtggtggtgc atgootgtaa toccagotac ttaggaggot gaggcaggaa aatotottga accogggagg cagaggttgc agtgagotga gatogcacca ttgcactoca gootgggcaa 127320 127380 127440 caagagcaaa actccgtctc aaaaatataa ttataataaa taaataaaag taaagtattg 127500 atgtttgtga atgatttatt cttctaatga actagaggag atttttccag gaatttcaga gccagtgagg ttatgttgct tgtatgtgtc atgtgtatcc aggtgaaaaa acttaattaa 127560 127620 acgctattat ataataccat acataaaaac tgaattttag gaatactgaa gaatgacata 127680 tagaagtcaa atcattaaat agctagtagt aaacagaata gagtgtcagc tgttacccaa tgatgataat attttcacga ttaaaattaa accttttctg attttaaagg aaaagttcag 127740 127800 atctgtatca tataaagaat gtaaattttc agggtaataa aattaaaatg cagagagaa 127860 aatgcaaaaa tagttottac tagatgtgtg tatgtaagga acttagacta attttaagaa 127920 cactgtcaag accctggtag ttaggtagga aaaaagacat gaatgattca ttcaacaaaa 127980 acttigagta tttctgtgct agatggtagt gttacagtgg taaacaaaat aaatgtgttt 128040 ctgctatcct ggagcttagt ctacaaaaaa ggtacatatt ggccgggcac ggtggctcac gcctgtaatc ctagcacttt ggaagatcga ggcgggtgga tcacctgagg tcaggagttc 128100 128160 aagaccaget tggccaacat ggcgaaacec cgtctctact aaaaatacaa aaattaactg 128220 ggtgtggtgg cggacacctg taatcccagc tactcgggag gctgaggcag gagaatcact tgaacctggg agacagaggt tccagtgagt cgagatcatg ccactgcatt ccagcccggg 128280 128340. ggacaaaagc gaaaatacgt ctcaaaaaaa caaaaacaaa caacaaaggc acgtattaaa 128400 tacgaacata aatatttaca aattatactg aataagttct catgtttatt atttgcttgt 128460 ccagttacaa acttttcctt cgtagaatta gaaatataaa taataaacat gagaactcat 128520 tcagtataat taataattat taaatgtaaa taaaaacatc tatgtacaat taggcattta tttaagaatt atttgaaaaa aaaacaatgt ggaaacagat attttgatat attgctagtg 128580 128640 attgaaattg ataatgttct tttgaagagt aaagtgacca tatatattaa agttaaaatt 128700 taactcagca atcacacgcc tggtgagtta tcttaaggaa atcagtttga aagtaaaatc 128760 aatatatgca caaagacttt aacatttatc ataaaccaga aaaatcgagt ttcaaattat 128820 atcctatgga ctattttctg ctaaaaagta ttaatatcaa ctttatgtaa tactttcgtg 128880 acaaatattt tgggggagaa aacccaacaa aattacatgc attgtaattt tttttttt 128940 ttttttttta gacagtettg etecagegte caggetggag tgeagtggtg caatetegge 129000 teactgeaac etecatetee caggiteaag caatteteet geeteaggee teeegagtag 129060 ctgggattac aggcgctcac caccatgcct agctaatttt tatagttttt agtagagatg 129120 gggtttcate atgttggcca ggetggtett gaacteetgg tetcaagtga teegtetgee 129180 teggeeteet agagtgetga gattaeaggt gtaageeact geaceeagee ttatgeatta 129240 taattttaat tigtaaacig tacaaaggga taatacttgt agtacaacaa gaagtaaaaa 129300 catttgttat aggtagttaa catttgtaac cagtagaatt ataggtaaaa tttatttatt 129360 taaaacagtt ttagttggat ttgatttcaa ctttaaaata atgcttttca tctctatcag 129420 gtotttttgc ctggcttttt gtccagcaat ctttattata aatatttgaa tgatctcatc 129480 catteggtte gaggagatga atttetggge gggaaegtgt egetgaetge teetggetet 129540 gttggccctc ctgatgagtc tcacccaggg agttctgaca gctctgcgtc tcaggtattg 129600 actgattgcg tetgccatta gggagaaaag catacacate ettteettea cateccagta 129660 acagatccta ttatttgtaa attttaagtt gtggaaaaaa aagataaaag ccaggcacag 129720 tggcctgtgc ctgtaatccc agcactttgg gaggctgcgg tgggcggatc acacgaggtc aggaattcga gaccagcctg gccgacatgg tgaaacccca tctctactaa aaatacaaaa 129780 129840 attagccggg catggtggca ggcacctgta atcctagcta cttgggaggc tgaggcagga 129900 gaategettg aacccaggag geagaggttg caatgaacca aaateacgec actgcactec ageetgggtg acaaagtgag actgtgtete aaaaaaaaa aaaaaagaga gaaataaaat 129960 130020 tagcctactt actatcttct aatcaaagca tttgtggtaa cttaaaatat actgtattgt 130080 aaagtatcat gctgtttcat ttaggccatt attctatttg aatctgtggc tgtttctctt 130140 aataaatcaa gtaatatgga atatattcat agcctctgaa gagctcttta tgtaagtatt tatttaggat actttttgta aaataagtga atgaattctt aggtctcctt ttttttctt 130200 130260 ttcttgagac agggtctcct cgctgcaacc tggaaattct gggctcaaat aatccaccca 130320



ccacageete	ctgaatagct	gggactagag	gcatgcacca	ccacgcctgg	ctaatttgaa	130380
					gggagaccga	130440
					tgaaaccccg	130500
					atcccagcta	130560
cttgggaggc	tgaggcagga	gaatggcttc	aaccagggag	tcqqaqqttq	cagtgageeg	130620
					aaaaaaattt	130680
ttttttaaa	tgatggagtc	ttactatatt	actcagacta	gtcttgaacc	cctgacctca	130740
aatqccqcct	gcttcagcct	aagtttctt	tttttttata	aagagacagg	gtcttgctat	130800
gttggccagg	gtagtctcaa	actcctggct	tcaagcagtc	ctcccacctt	ggcctctcaa	130860
agtactagga	ttacaggegt	gaaccactac	ctataatott	gtgtttcact	caaggccttt	130920
		gtgccacatt				130980
		aaccatacct				131040
					taaactcaca	131100
		aatattcccc				131160
					ttcaatactq	131220
					tttacaaagc	131280
tctcctgagt	atctttttct	tctgttaagt	ttacctagga	gataaactgc	tgagtatggt	131340
		ataggttaga				131400
atttttatta	ttatcattat	ttgagacagc	atcttgctct	atcacccaaa	ctagagtaca	131460
atggcacgat	cataactcac	tgcaacctcc	acctcccaaa	ttcaagcaat	tetectacet	131520
cagetteete	agtagetggg	attacaggca	tatacaacca	cacctgggta	atttttatat	131520
ttttagtaga	gaaggggttt	caccatgttg	atcagactag	tattgaactg	ctgacctcat	131640
		ccaaagtgct				131700
ctgaatgtct	tatttttaat	taggcactta	agaaaggcct	aggtactaac	cataaaatat	131760
atttttatac	cttttattaa	tactatatat	atagaaaact	gcacttatca	taaccttaga	131820
caccttgaag	aatgttcaca	agcagaacta	acccatotoa	cccagcatcc	agatcaaaaa	131880
		gaagccctct				131940
caccagggta	gctactatcc	tgacttttga	tggcatagat	tagcattacc	tattettate	132000
attttataaa	taaaaccata	ctgtgtattc	ttttcttcta	cagctttatt	gtgctaattc	132060
acatttacat	catacaattc	agtggttttt	atatggtcac	agagttaggt	aaccattacc	132120
acatcgattt	tagaacattt	ttttcactcc	agatagaaac	cccctttact	taaactccaa	132180
atcccccact	ccaccaqccc	taggcagcca	ctagtctact	ttttatctct	atagagacaa	132240
tagatttgct	tattctqqac	atttcataaa	catggaaccg	tatattatot	gatetttat	132300
tgccaactgt	ctttcactta	gcatcatgtg	ttcaaaagag	catcatqtta		132360
gcatgtatca	gaattttatt	cctcattatg	gccaaatatc	ccattgcaag	gatttatgac	132420
attttatttg	aattgtaccc	tectttetge	catttatcaa	taatoctact	gtgaccattt	132480
gtgtacaagt	ttttgtgtgg	atacaggttt	tctttttqtt	tttaaatttq	aggtggagtc	132540
ttgctctgtc	gcccaggctg	gagtgcagtg	gcacaatctc	ggctcactgc	aacctctqtc	132600
tcctgggttc	aagcagttct	cctgcctcag	cctcccgagt	atctqqqact	ataggcacgc	132660
accaccacgc	ccagctaatt	ttttagtaga	gatggggttt	caccatqttq	gccagtctgg	132720
tctcgaactc	ttgacctcaa	gtgatccacc	catctcggcc	tcccaaaqtq	ctgggattac	132780
aggggtgagc	cactatgccc	ggctgtggtt	ttcatttctt	ttgttgtata	tacataggag .	132840
tagaattgct	gagtcaagag	gtaactctta	aacttattga	aaaactgcca	gattgttttc	132900
cgaaaaggct	gcaccatttt	gcaatcccac	cagcagtgta	tgagttttac	agcttctcca	132960
catttcattg	gaacttatta	tctgtttggc	tgtttttaaa	aatqataqtc	attccaataa	133020
gttctacttc	agtgtggttt	ttgcacttct	ctgatgagta	atgatgttga	gcatctttc	133080
atttgcttat	tggcctttgt	tctagctttg	gaaaaatgtt	tattcaaatc	ctttqqccat	133140
ttttatttt	atttttattt	atttatttt	ttttgagacc	aagtctcact	ctgtcagcca	133200
ggctggagta	caatggtgtg	gteteagete	actqcaacct	ccacctccta	tattcaaqta	133260
attctcctgc	ctcagcctcc	cgagtagctg	ggattacatt	tcaggcacct	accaacatac	133320
cgggctgatt	tttgtatttt	tactagtgac	agggtttcac	catottagec	aggetggtea	133380
caaactcctg	acctcaggtg	atctgcctgc	ctaggettee	caaaqtqctq	ggattacagg	133440
cgtgagccat	tgggcccagc	ctagattttc	ttttttctt	tttttttqa	gaaggagtct	133500
tgctcttgtt	gcccaggctg	gagtgcaatg	gcacaatctt	ggctcactgc	aacctctgcc	133560
teetgggtte	aagcgatttt	cctgcctcag	cctccccagt	agctgggatt	acaggtgcct	133620
accaccacac	ccagctaact	tttgtatttt	ttttagagac	agggtttcac	catgttggcc	133680
aggctggtct	caactcctga	cctcaggtga	tccacctgcc	ttaacctccc	gaagtgctgg	133740
gattaccggc	atgagctacc	aggcccagcc	aattttctca	ttatattqcc	caggetggte	133800
tcaaactcct	gggttcaagt	gatectectg	ccttggcctc	ccaaaqtqtq	qqgagtacag	133860
gcgtgagcca	ccttgctcag	cccctttgcc	catttttaaa	ttagattgcc	tttttatatt	133920
gagtttcagg	agtcctttat	atattctaga	taaatgtccc	ttatcaaatt	atattatttc	133980
caggtatttt	cttcattctg	tgagttgtct	ttcctctacc	ttttaaaaaa	gatagatttt	134040
tgtttgtttg	tttgtttgtt	tttttaagat	aaggtctcat	tctgctqccc	aggctggagt	134100
_	=				<del>-</del>	



				i de la companya de		
gcagtggcac	aatcacagct	cactgccacc	tcaacttcct	gggccgaagt	gatcctctta	134160
cttcagcctc	ctgaatagct	agggccatag	atacacacta	tcacacccag	cttttttt	134220
ctgtttgtag	agacagatct	tactgtgttg	cccaagttgg	tctcaaactc	taggctcaaa	134280
gtgattctcc	cacctctgcc	tcccagagtg	ctgggattac	aggtgtgagc	cacacacaac	134340
ctatcttttc	actattaata	gtatcttcct	gcttcagcct	cccgagtagc	taggattaca	134400
ggcacccacc	accatoccto	gctaatttt	ttgcatttt	agtagagaca	atatttcacc	134460
atottcacco	aactaatett	gaactcctca	cctcacctca	ttcacctgcc	atoccatocc	134520
2224444	9900990000	guactettga	ccccaggcga	total	attatta	
adagiging	gattacaggo	gugagedade	geaceeggee	aaaatattgc	ettettaaca	134580
gtattgtett	ctaatttgtg	aacatggatg	tatetteatg	tatttatgtg	ttctttcatt	134640
				ctccttgggt		134700
tatgttttaa	gttcttttcg	attccattat	aaatagaatt	gttttcttaa	tttcattttc	134760
agattgtttg	atgagagagc	atagaaatac	aagtgatttt	tacatgttga	tcttgcaact	134820
tcaactttga	taaatctgat	tgttagctct	aatagttttc	ttgtggattc	tttaggattt	134880
tcaatatata	agatcatgtc	atttatggat	agagatagtt	ttttttctgg	ctagaactta	134940
cagagcaatg	atgagtagaa	gtggcagaag	caaaaatctt	tgtcttgttt	cctatctgac	135000
agggaaagct	ttcagtttca	tcatttaata	tgatgttagg	tgtgggtttt	caataaatgc	.135060
cttttttcag	attcaggaat	ttccctatca	ttcctgattt	tttaaggett	ttttttt	135120
ttaaatcatg	aaagggtgtt	gaatattoto	atottcttc	tgtatcagta	taaatgatcc	135180
tatogatttt	gaatttatt	ctattastat	gaaatattaa	ttgattttca	catattana	135240
caeggaeeee	tacatasast	cogcogacgo	taataataa	ctgattttta	gacgicaaac	
taaccccgca	caccigagai	gaacccacc	Lygicalygi	gtataatctt	Licaalaige	135300
Lgetggatte	catttactgg	caccetgetg	aagattttgt	atctgaacgc	ttaagataac	135360
atttacactc	tatcagaaat	gaattgacca	taaatgtgag	agtgtatttg	tgggttcttg	135420
attctcttcc	attccaaaga	tagacataca	tccgtctgta	tgtctgtctt	tatgccagta	135480
ccatactctc	ttgattacta	ttgctttgta	ataagttttg	aaatcagaaa	gtataaatga	135540
gattttggta	tctgagtaac	agtcctcata	gaattagttg	ggaaatattc	cctctttatt	135600
ctggtccctc	tttcttttt	gtttaactgt	gtatcttgga	gattgttcct	tctcaacaca	135660
tgagagccgc	tttccctacc	ctcccacccc	tgctatagag	aggtctataa	gtgtctgttc	135720
aattattta	tttacttaac	ctattactta	gtcggggaca	ttaagcttgt	ttatgtcttt	135780
tattttaaac	aatgctgcag	tgaataatct	tgtatataag	tcattttcca	tcaatataaq	135840
tctctctqta	actgaatttt	tagaagtgga	atttctaggt	caacctatgg	ctctgtattt	135900
				agtaggaggt		135960
				aggtttcctt		136020
totcatatoo	cctcaccaag	aatcaaaaac	attcctattt	accetgtaaa	catogggctt	136080
tactacccaa	gatacatatt	tetegateta	tgacagettt	tcatattgaa	gaaataatge	136140
tataaataca	gracatttgt	togaacttag	atcattaaca	atgtcttata	aattcataca	136200
ttatacattt	tattttattt	tattttttag	tttttcatac	agagtcttcc	teteteece	136260
aggregates	aceataatea	aatcttccct	cactagasac	tccatctcct	aggatassat	136320
gatteteate	teteagecte	cacactact	atcattagac	gcatgcacca	gggcccaagc	136380
Ctaattttt	tatttttagt	acasactoro	tttaaaata	ttgaccatgc	teacateans	
						136440
cccccggccc	caagigatig	geetgeetea	geeceedaaa	gtgctgggat	corrections	136500
ggcaaaagac	gaacaccgag	ggergeargg	Lggeteatae	ctgtaatccc	ageaetttet	136560
gagaccgagg	cgggaggagc	cctggageee	aggagggtga	ggctgcagtg	agttgtgatc	136620
gcgccattgc	acttcaacct	aggaattata	ggcttcagtc	actgtgcccg	gcatgtacat	136680
tttaatattg	tgctttcctc	ttttagctat	agtatgaggt	tacatttcag	agtcattgtt	136740
gttaagcatc	ttaatagtga	tgaggttgag	tgaaagttac	ttctatttca	aacactgaag	136800
aaaattttgt	acaaatctgt	cacattccaa	gcccaggact	gattgtttca	tatacttcta	136860
attttacaat	ttctattgta	gtccagtgtg	aaaaaagcca	gtattaaaat	actgaaaaat	136920
tttgatgaag	cgataattgt	ggatgcggca	agtctggatc	cagaatcttt	atatcaacgg	136980
acatatgccg	ggtaagctta	gctcatgcct	agaattttta	caagtgtaaa	taactttqca	137040
tcttttaaat	tttttaatta	aattttacat	ttttttctaa	tctattatta	tatacccaga	137100
actttcactt	agagtgtgca	gtataatgtg	gtggttaagt	ataaaggctc	tggagtgact	137160
tcctqqqttt	taatcttqqc	tctqccattt	attggcagcc	gctaacctct	togtatetea	137220
gtttcttcat	ctgtaaaatg	agaataataa	agtgaaaaga	tgccaacatc	atttactctq	137280
ggctgcataa	ctgatacttg	gaaaaagtat	teetttgagt	ttaagaatta	agttggttat	137340
				atgccactta		137400
ccacacatcc	aatcataaaa	tcactttctc	ttccctaaac	atagcttgat	taacatotaa	137460
addtatatas	aggettgatt	acactaccct	catecotaaag	ccagttccca	acacacytaa acacacytaa	137520
~ggrgrgraa	tttaaaaata	tttaattact	ttanatana	nata a coate	graguaccat	
yaaaaayyya	ananastata	ataggaras	LLCagtagaa	agtaacagtg	graggccagg	137580
cycaycygct	cacacctgta	accocagcac	rctgggaggc	cgaggtgggc	yyarcacgag	137640
grcaggagat	tgagaccatc	ccggctaaca	cgatgaaacc	ccgtctctac	taaaaataca	137700
aaaaattagc	cgggcatggt	ggcaggcacc	tgtagtccca	gctacttggg	aggctgagac	137760
aggagaatgg	cgcgagcccg	ggaggcggag	cttgcagtga	gcttagattg	tgccactgca	137820
utccagcctg	cgcagtggag	cgagactctt	gtctcaaaaa	aaaagaaagt	aacagtggta	137880



-178 of 185-

ttgggagact gaggagccta gaaagtactt gaaggaagta aaaggtttgt ttgaccacat 137940 tgtatttgga aagccagctt tttcagctgt gtcagctttg tgtagtgatt tttagttctt 138000 cttttagaaa ataacggaca aggccgggca cggtggctca cgcctgtaat cccaccactt 138060 tgggaggccg agacgggcgg attacctgat ctcaggagtt cgagaccagc ctgggcaaca 138120 tggtgaaacc ccgtctctac taaaatacaa aaagttagcc gggcgtggtg gcgtgtgcct 138180 gtagtcccag ctactccgga ggctgaggca ggagaattgc ttgaacccgg gaggcggagg ttgcagtgag ccaagatcac accattgcac tgcagcctgc gcgacagagt aagactctgt 138240 138300 ctcaaaaaat aataataaaa taaaaaagaa tggacagtaa acctaaatga gttcattccc 138360 aaagatgatg ttattettaa gggatggtte atttatttaa gacettacat aaagtetate aattgegtga ttttteaett etgtaattgt gtgtatgtat aatgtaaata tatatgttt 138420 138480 tgttttgttt tggttttttg agacggagtc tcgctctgtt gctcaggctg gaatgcagtg gtgcaatctc agctctctgc aacctctgtc tcccaggttc aagcgtttct tctgcctcat 138540 138600 cctcccaagt agctgggact acaggcacgt gccaccacgc ccggctaatt ttttgtattt 138660 ttagtagaga tggggtttca ccgtgttagc caggatggtc tcaatctcct gacctcgtga 138720 tecaceegee ttggetteee aaagtgttge tattacagge atgageeace acacecagea 138780 tgtatttttt aaatgtataa aatgaagcag aaaagagaaa tgataatttt tetteatett 138840 gaaagattat etteaceagg egeagtgget cacaettgta ateceageae tttgggagge eteggeagge ggeteaettg agttegaaae eageetggee gaeatggtga aacteegtet 138900 138960 ctactaaaaa taaataaata aagatggttt taatatatgt tttagtttta tgattttagc 139020 atctttctga aatttttctc aaggcaagta aatttgtatc agttggtata ttggtaccca 139080 tctatgaaat aacttattag gaagatatct ctaaaataag atcactttgc ctaaaataaa 139140 ctgatatatt gatgttcaca gaatttttct tttaaccgac ttgataaatg cattattctt 139200 gacgtcaagt gatccacctt cetcageete ceaaagtget gggattacae acatgageea cegcacctgg cattattett ataaaaggtt aaatttetag ttaagtttaa tgteetett 139260 139320 gttcatgtac cattgcttat tttcttccct tcctactcac agtaatcatt cttatggtat gcacttttgt ttgcttattt ttatgtaatt gatattacgc tccattctgt acgttgtact 139380 139440 ttcattcaca gtgagttttg gacattccta tgttcatcta tacagactta cttcatttta 139500 actacactgt agtattccgt atgtaatatt tactataact catcactgta gcagagcatc 139560 tcatagtgta tgtattactg ttttgccatt ttggtatcaa tgagtattta agtcatttgc 139620 agtttttccc tcttataccc agtattacag aggatetett titatatget tetttgtace 139680 139740 teactatgtt geceaggetg gteteaaact cetaggetea ageaateett ceatettgge 139800 ctcccaaagt gctggggtta caggcatgag ccaccatgcc tggcctacat tttaaatttt 139860 gatagetett acaatttact ttgtaaagta tetgeateat tttatgttet caccagtett taataagaat actteatact tttggetgga cacagtgget cacgeetgta ateceageae 139920 139980 tttgggaggc cgaggcgggc agatcaagag atcgagacca ccctggccaa tatggtgaaa 140040 ccctgtctct actaaaaata caaaaattag ctgggcgtgg tggcgcaccc gtagtcccag ctactcgaga ggctgagaca ggagaatcac ttgaacccgg gaggtggagg ttgcagtgaa 140100 140160 ettagateae accaetgeae tecageetag caacagagtg agaetetgte teaaaaaaa 140220 140280 140340 140400 140460 140520 140580 140640 caatteteet geettageet eecaagtage tgggattaca ggeateeace accaeacea 140700 gctaattttt gtatttttag tagagacagg gtttcaccat gttggccagg ctggtctcaa actactggcc tcaagtgatc cgcctgcctc ggcatcccaa agtactggga ttacaggcat gagccacagt gcctagccac tttttgcttt ttaactttgt tttatagtac tatagtttta 140760 140820 140880 gtataaacag atgtatgtat acacacaact atggctttat aatatgtttc agtcattgtt agagcaaggc ctaccttttg ggtgcttctt ttacaaaatt gtcttggcta ttcttgtgcc ttttttctta tttgtgaatt ttagaattgt gaattacctg ttgactcacc atgttttgta 140940 141000 141060 aactgaggat tttgaatgga attgcactca attaaagatt atcttgcttt ctgtgcagca 141120 atgttttatt tcaaataatc cctactttaa attacttagg atagctataa attgtgtttc 141180 tggctttcta gatttagatg aaacgcttta aattgattgt tttctcctaa atttaaaact 141240 gattgttaga agttaaagtc ttctgttcat tcttatttag gaagatgaca tttggaagag tcagtgactt ggggcaattc atccgagaat ctgagcctga acctgatgta aggaaatcaa 141300 141360 aaggtttgtg gtgtttttat acttcatatt aagcctttac tcacattagt gattgactgt 141420 aagtcaaaga ccacttaagg tttaaactgt ttattttgta aagtaaccac tgtatctttc 141480 accttgtgtt tatagtcaga agtaagtaca agggcttcct gtagtcacat ctttatgcaa 141540 teteetetga ateaaaagtt agtgaacttg ettigeeact ceagaaggea catgaatatg 141600 aaaaagcatt gtctattttc ttatttaatg gcaaaatacc cgacctaagt tggacttaat 141660



gtttgagacc gtttatttta ttaaattata ttttttctct tttcttttt ttttttgaga 141720 cagttettge tetgteacce agaceggagt geagtggtet gacegeacet caetgeaace 141780 totgottoot aggttcaago gattttcctg cotcatooto otgagtagot gggactacaa 141840 gtgcgcacca ccacacctgg ctaatttttg tatttttagc agagatgagg tttcaccacg 141900 ttggctaggc tggtctcata ctcctgacct caagcaatcc atccgccttg gcttcccaaa gtgctgggat tacaagtgtg agccaccatg cctggcctta ttaaattatt tttattaaat 141960 142020 tteetcaaga ttgatgaaag taatgaaata taaaagtaat gaaatatatg tggaaaatag 142080 actggattaa gaaaatgtgg cacatataca ccatggatac tatgcagcca taaaaaagga 142140 tgagttcatg tcctttgtag ggacatggat gaagctggaa accatcattc tgagcaaact 142200 gteteaagga tagaaaacca aacaeegeat geteteaete ataggtggga attgaacaat 142260 gagaacactt ggacacaggg tggggaacat cacacgctgg ggcctgtcgt ggggtgggg gctgggggag gaatagcatt aggagatata cctaatataa atgacgagtt aatgggtgca 142320 142380 gcacaccaac atggtacatg tatacatatg taacaaagct gcacgttgtg cacatgtacc 142440 ctagaactta aagtataata aatttaaaaa aaataaatat atgtggaaaa tattaatagg 142500 tcaaaattca aattgttcat ttaatcagaa gagtagttta gtcaaatcca agggttagac 142560 aacagaaatc ttttttgtca agtgcattct ttgtgactga tttcattttc ttcctqqttt 142620 acacaggaag atttcagaaa caaatgtgga tccgtgacag atggtatcta gaagttttta gtttggttga attgacagta ttttattgag taaaagatac taatttttgt aagaagaaaa 142680 142740 attcaatttt gataagtatg tttaagatta agagctattg gccaggcgct gtggctcatg 142800 cctgtaatcc tagcactttg ggaagctgga gcaggtgggt cacgaggtca agagattgag accatcctgg ccaacatggt gaaaccctgt ctctactaaa ttagccaggc gtggtggcac 142860 142920 atgeetgtge accegeetee gggtttaage gateetactg ceteaggete etgagtaget 142980 143040 143100 143160 143220 143280 tcttccaagt agctgggatt acaggcgcgt gccaccacat ctagctaatt tttgtatttt tagtagagac agggtttcac catgttggcc aggctggtct cggaactcct gacctcgtaa 143340 143400 tetgeceace teggeetece aaagtgetga gattacaagt gtgageeact gtgeecagee 143460 atcttatttt ctttctttt ttttgtcggg tgggagggg acagagtcta gctctgtcgc caggcttggc tcactgcaac ctctgcccc caggttctag caattattct gcctcagcct 143520 143580 cccaagtagc tgggattata ggcacctgcc accacgcctg gctaattttt tgttattttt agtagagatg gggttttgct atgttgacca tgctggcctc aagtgatccg cccaccttgg 143640 143700 cctcccaaag tactgggctt acaggcgtga gcttgtattg ggtaaaagaa caatattggg 143760 ggctgcatgg tggttcatac ctgtaatctg agcactttgt gagactgaga tggaaggagt 143820 gttggagccc aggagggtga ggctgcggct gcagtgaatt gtgatcacgc cattgcactt ccacctaggt aatggagcaa gaccatgtct ctaaaaaaaca aaacacaatt tttttaagga 143880 143940 atactgggaa gaggtcagtg gtggttttag aacagaggaa gtgccagatg acctttgtga ggcattggcc aggaagaact ctacagtgtc tttaggtagc ttctgtccat aaggataatg 144000 144060 gggtctcctc cccagtatta atagaaaatc tctgagctgt ttttttttgt ttgtttgttt 144120 tgttttttt tcctgagatg gagtctctct ctgtcggcca ggctggagtg ctgtggcgcg atcttggctc actgcaagct ctgcctccca ggttcacacc attctcctgc ctcagcctcc 144180 144240 caagtagetg ggactacagg tgtccaccac cacgcccage taattttttg ttattttag 144300 tagagatggg gtttcaccat gtcagccagg atggtctcga tctcctgacc tcgtgatccg ctcgcctctg ccttgcaaag tgctggagtt acaggcgtga gccaccgtgc ctggcctggt 144360 144420 144480 gtegeeeggg etggagtgta gtggeaegat gteggeteae tgeaagetet geetgeeagg tteaageeat teteetgeet eageeteetg agtageaggg accaeaggeg etegeeacea egeeeggeta atttttgta tttttagaag agaeggggtt teaeegeatt ageeaggatg 144540 144600 144660 gtctcgatct cctgatgtcg tgatccgcc acctcggcct cccaaagtgc tgggattaca ggtgtgagcc accgtgcctg gcctgatttt ttttttttt taatctggtc tcatacctct 144720 144780 gacageteat gaagaagtge teetgettea tatgtatatg tgttageata gtgttaaeat 144840 agcataggtg ttcggtgttt gcagtttctg tttgttttat atgaattaag gtgtattatg agcagttgaa gatatatagg aaattttttc ccaaaccact atctctgctc gttctattca 144900 144960 ttcagtctgt ttatgttatt cettcattca ttcattttat agaacagtgg agtgeetact 145020 gtatgcatct attgttctgg gtcctgggga agaaaacaaa gttcctgctt tcatggaact tacattatat tggcggagac agtaacagac aaacaaatgt agcctgtgta catgtgttac 145080 145140 atgaaaagca gggtaggggg ctgggagaga gtagtaggga gtgctatttt cgaggtggtt 145200 gtcaggaaag gcctcactga ggaggtggca ttttgagtag acctgagcgc agcgggggcg 145260 taagcccagg cagcatgtgg aggaagagtg ttcttggtga aaggaacaag gatagaggcc 145320 cgaagctaga gagctcagca tgatcaagga acagcaagcc ccgtgtggct ggaatggagt 145380 gagcaaagga atgagcagta gaaggtgagt gagttgggag gtcaccagag accatggcaa 145440



ggacttgaaa gtgtcaggga cacattggaa gttggagcag ggaaatgatg ggatttatgt 145500 tttgtttttg ttttatgttt agtgttttta agggattgct ctatcagcta tttggaaaat 145560 ttagtgtagg gcttcaagaa gagaagcaga gaaacaacat tcttgccata gtcatagtct 145620 aagtaaggga tgatggtggt gtggattagg ctggtagtgg aagaccagtc cagttcgggt 145680 tgtatttgaa ggtagaggca aaaagattat atttctacca gcaagcccat ctatgaagtt 145740 acttgtatta ttaatttaat tgagacatgc ccacataaac taataaatag gaatttctgc agtttggtta aacacccctg tatatcctgg ttcttcttt agttgtccag atgtctcttt 145800 145860 aagtcaagta ttttttggtg gtgtaggagc ctagagattg aatttattca cccaaaaggc 145920 atttgagtga ttactatgtg ccaggcacta tgctgaatgc caaggatgta aataagaggcgtagtctca gtctgtttta ctccagcttg gttcctttt aatgaccctg acttgttaag 145980 146040 catatcagtt atcctacaga atgtttaatc ttctgtactt tcctggttgt gttatttagc ttattctct ttccttgaca tttcttgtaa actggaagtt acacctatag tcttgatgat tcgtgttaca cattttagat tagaacacat catgtgttgt atatggtgtt tttgaaagcc 146100 146160 146220 tetetgtata ttggtetgta cattaaaatg ttgeetgaat ggatacaet aaaatttaae agtgattaca ttagagatga gaagaaagag gtgeetttta etttteaata taeettttee 146280 146340 tetgettttt gaactttett geectatgea taegttattg ettaateate caecteatet 146400 cttcccctgt ggctttctgt tgcatttgga atgaaatcta gcctctttgc tgttacctgt ggatgtccct tgctggcctc tatcacctta ctttgaacca ctcctttcat ggactgagct 146460 146520 ctcattggac tatcttttat tcttttgctg aagtttcttc actttgagtg cctctgcagt 146580 tgctatttca tggctgtggc aagccctgcc atggctttca tgcaaggatg gttcctcctt 146640 ctcatetcaa tattatetet teagagaggg acetteecaa eteegatgat etaaaateet 146700 ttgtatatac cactcactac cacttette ttttetttte ettttatett tttttttt 146760 ttttttttt gagatagggt cttgctctgt tgcccaggct ggaatcacga ctcactgcag cctcatcttc ttgggctcaa atgatcctct cacctcagcc tctcgagtag ctggaactgc 146820 146880 aggcacacac caccatactt ggcttattat tttacttttt gtagagacag ggtttcacca 146940 aggetggtet caageteetg cegeaageaa tecacatete teageeteec aaagtattgg 147000 gattatagga gtgagccact actcctggcc tattttctta ttcactgtct aaaattatct 147060 tgttcattta tttacatact tgtttatagc ttatttctca gctggacatg gtgcctcaca 147120 cctgtaatct caatactttg ggaggctggg ttggagaatt ggttgagccc aggacttcaa 147180 gaccagcctg ggcaacaaag tgagaccctg tctataaaaa attgtttaaa aattagctgg 147240 gcatggtggc acatgcctgt ggtcccagct acttgggagg cagaggtggg agaatcgctt gggcccagga ggttgaggcg acggtgagcc atgattgtgc cactgcactc tagcctagtg 147300 147360 acagagtgag accatgtgtc taaaaagtaa ataaaaatag tttctctttc atgactagaa 147420 tattacctct atgtgggcag ggagtttgtc tatactattt ggcactatat ttcctgattc tgaaattatg cctagcacat ggtaagtact ccttaaatat ttattgactg aattatttaa 147480 147540 tacttaagaa tttcatttgg gattatctga gtggtaagat tacggattat atttatgtaa gaaaaaatca ttttttaaac ttggttgccc tttgccacac tgacatagac actaagtttt cttagccaga ttacttccga ggatactcac agaggccatt ctcttctcaa tccccaaata 147600 147660 147720 attgatattt cttagcactt tcaagctaat gcaattetta gatgatgtat etgtgtatat 147780 catatectea ttetacaaat gtagaaattg aagtetggge acagtggete teacetgtaa 147840 tetcagcagt ttgggaggec aaggegageg gateaetgag gacaagagtt aagaecagee tggccaacat ggtaaageet tgeetetatt aaaaatacaa caattaggge egggegtggt 147900 147960 ggctcacgcc tataatccca gcacgttggg aggccaaggc aggcagatca cgaggtcagg 148020 agttcgagac catcctggct aacacagtga aaccccatct ctactaaaaa tacaaaaaat 148080 tagccaggca tggtggcacg cgcttgtagt cccagctatc gggaggctga ggcaggtgaa tcccttgaac ccgggaggcg gaggttgcaa tgagctgaga ttgcaccgct gaactccagc 148140 148200 148260 ggtggcgggt acgagtacct gtaatcccag ctactaggga ggctgaggga ggagaatcac ttaaacccag gaggtggagt ttgcagcggg ctgataatgc accactacat tccagcctgg 148320 148380 gcaacagagt gagactctgt cttaaaaaaa aaaaaaagaa agaaagaaat tgaggaatgt 148440 ggagattgtg gtctgtgatt tgttaggaat cacacagcag gttagtagca actacagggc tttggttcag aatacacct tgacaatggt ttgtttacag ttcggctccc cttcctctgc cttcctctcc ttccttattg agggcagctg gaaagaattt tcatcattta ctagcctata gctttaattt gagttttgaa accttgataa tagagcacag aggaaaagac tgagttttga 148500 148560 148620 148680 ttttttgaga cagtettget etatggeeca ggetggagtg cagtgacace ateteagetg 148740 gttgcaacct ctgcctccca ggttcaagca attctgcctc agcctctcga gtagctgaga 148800 ttacaggcac gtgtcaccac gcccagctaa ttttctgttt ttgtttcgtt ttgttttttctgagatgga gtcttgctct gtcacccagg ctggagtgca gtggtgcgat gttggctcac 148860 148920 tcaaacctct gtctcctggg ttcaagcaat tcttctgcct cagcctcccc agtagctggg 148980 actacaggta cgtgccacca tccctagttc atttttgtat gtttagtaga gatggggttt 149040 cactatgttg accaggetgg tetegaacte etgateteag gtgatetaet egteteagtt teceaaagtg etgggattat tggcacaege etattttgt atttttagta gagaeggggt 149100 149160 ttcaccatgt tggttagact ggtctcaaac ttctgacctc aagtgatttg cccgcccag 149220

# -181 of 185-

cctcccaaag	tgctgggatt	acaggcgtga	gccaccgtgc	ccagccaaga	ttgagttttg	149280
aaaagagcct	tctgagatta	tgagaagggc	aagcaagata	acttaagaag	ttacattaaa	149340
atcatctaag	agacagtgta	acaagaagga	attgtaaaat	gatgttatga	gcacgtgccc	149400
aatgtagtgg	caatcccttg	tgcttcgata	cattggtggg	agacaaaact	gtacttaaat	149460
tgataaatcc	cttacatgtc	attttaagga	gcttagactg	actcccatca	tgtagacatc	149520
agagatttct	tttttttt	ttttttt	tttttttt	tttgtgacag	agttttgctc	149580
			atctcggctc			149640
			cgagtagctg			149700
			agacggggtt			149760
			cctcagccac			149820
			tctaaacaga			149880
			tgggagagac			149940
agccagtgga	attagctggt	aatgttgata	ggagaagaaa	aagattcaaa	gttaggtagt	150000
			tatgatatgt			150060
			tgggaaggta			150120
			gcaggggggc			150180
ggggtgattc	aacagccagt	tgagccttca	tgcagagcat	ttaacactgt	gactctgtag	150240
actetggttg	gcagtaaaat	ttcattaaac	caatatttaa	accettaggt	aataataaaa	150300
attgagggaa	aaggatccag	gttttgtatt	ttttatgaat	tcagttattg	aattaaacag	150360
			attaacttgt			150420
			taagctgtgt			150480
			gtgattacag			150540
			agtagagete			150600
cagctagttt	atatagacta	gagaactaga	atgtagcagc	atactctqtc	ttagaagccc	150660
			aaaacataac			150720
			tatcctggtt			150780
			actagatgtt			150840
agagtagaag	aaaagtccag	aactctgaaa	caccttttca	aaagtttttc	aagccatgat	150900
			caatataatc			150960
tccttagtgt	tttggggtat	cacacaaaaa	agaatatcca	tatctggaag	caacagcttt	151020
			tagtggtttt			151080
agtctcgctc	tgttgcccag	gttggagtgc	agtggcacga	tctcagctcg	cttcaacctc	151140
tgctcccagg	ttcaagcaat	tcttctgcct	cagcctcctg	agtagctggg	attataggca	151200
cctgctacca	tgcctggctg	atttttatta	ttttagtaga	gacaggtttc	accatgttgg	151260
			tgaatcaccc			151320
tggaattaca	ggcatgaacc	accatggcca	gccaaataag	agcatttta	atgtaaaatt	151380
atgcatgaaa	tgtacattca	attttgtctt	tgtttactag	gatccatgtt	ctcacaagct	151440
atgaagaaat	gggtgcaagg	aaatactgat	gaggtaaatc	ctacctttag	gataaaaaga	151500
tttctgttta	taagtgccac	cctcatgtaa	gtgaggttta	aaattttcct	tttctttagg	151560
tcccatgttt	aagcagcatg	gcacatttat	gttctcttac	ccagaatgta	ccaagaaagg	151620
gtggtccctt	cttaacatct	aacaattgcc	tggtagtagc	agtgaaggta	tcttcagtca	151680
gaggctagga	ccactgaagg	atatacatgc	attcaagttt	ccatcagcca	gcaggcatca	151740
			gtttccttcc			151800
agtagtggag	gcttgctttt	ttaatagtta	attaagtaca	ttgagagatg	ggaggtgaaa	151860
aaaggaaaat	gttttatttt	gaccatctaa	tatgaaagta	gttcggtgtt	aggtatccag	151920
tagttgacac	tggaagacag	ggaatgacat	gttaatattc	atagccagag	ggtggcccag	151980
			tccaaataag			152040
catttgttaa	gagcactgag	tatgtgcatc	tcgatccatc	taatgaataa	ccattatcac	152100
cagtttaaat	tattttcttt	aggcccagga	agagctagct	tggaagattg	ctaaaatgat	152160
agtcagtgac	attatgcagc	aggctcagta	tgatcaaccg	ttagagaaat	ctacaaaggt	152220
aaggatgact	tcgttttgtg	taaactaaaa	agtattattt	tccaggtgta	aaaataaaaa	152280
agaacataag	gggtttcttt	gcctttgaag	gattaactgc	tgtggggatt	accttcttat	152340
			tgaaacaact			152400
gggcaataca	gggaaaccat	ggaaaccaaa	cagagcccag	tagtcttgct	gaacgaaaga	152460
			tggctcacgc			152520
			aggagttcaa			152580
			aggcacctgt			152640
ctgaggcagg	agaatcgctt	gaaccaggga	ggcggaggtt	gcagtgagcc	gagatcacac	152700
cactgcactc	cagcctgggc	gacgagcgaa	accccatttc	aaaaaaaaa	tcaaagttca	152760
gagageteaa	tttgagtaga	agttgtagga	taaggtagca	gaaaagagga	agccgcccag	152820
aaagaaagcc	gtagagatat	ttagagagat	tcccatggat	ccttggccta	ggagtgatct	152880
gcacatgtgt	gggggaaaa	egeatgtgte	caggtagaga	acccccaga	aattagtagg	152940
cigaatgatt	geeggaacat	agggctaaga	aaagttcatg	gccagaagga	tetggeeaga	153000



#### -182 of 185-

gtagagagac ttagtaatac acaaggcatt gggtagtgtc ttcacagagg ttatgcctta 153060 ctactgaaga taaattagtc ctagagtaca agcacctgaa ccaagtttca aagcaaattt 153120 ttaaagggtc aaattaccta acaactgcat gccaaaacaa aggcctaacc ctctttacag 153180 taacacaaca aaattcagca cttcacagtg taaagttaga atgtctgacg tccaqqctqq 153240 gcgcagtggc tcatgcctgt aatcccagca ctttgggagg ccgaggcagg tagatgacct 153300 gaggtcagga gttcaagacc agcctggcta acatggtgca accccgtctc tattaaaaat 153360 acaaaaactt agccaggcat ggtggccggc acctgtgatc ccggctactt gggaggctga 153420 153480 153540 cgtcaatcac aaattaccaa gcatgacatg aagttgacct ataaccagga gaaaactcaa 153600 totatagaaa cagacccaga tgtgagaaag atgatgaatt tagcagacaa agaccatcaa 153660 gtggctattt taaatattaa aaatatgttc aagtggccag gtgcagtggc tcatgcctgt 153720 aateccagea etttgggagg eeaaggtggg taggagttea agaccagett ggecaatatg 153780 gtgaaacccc ttctctacta aaaatacaaa aaaattagct gggcatggtg gcaggtgcct atagtcccag ctatatggga ggctgaggca caagaatcac ttgaacccgg gaggtggagg 153840 153900 ttgaggttgc agtaagccga gattgtgcca cttgtactcc agcctggaca acagagtgag 153960 actotytoto aaaaaaaaaa aaaaaaaagt taaagaaaac aagagtataa tgagaaaaat 154020 gcaaaatagt tttaaaagaa ccaaatggaa tttcttaaaa taaaaaatac cagaaatggg 154080 ggccgggcgt ggtagctcac gtctataatc ccagcacttt gtgggggctg aggcaggcag 154140 atcacctgag atcggtagtt caaggccagc ctgaccaaca tggagaaacc tcatctctac 154200 taaaaataca aaattagctg ggcgtggtgg cgcattgcct gtaatcccag ctacttggga ggctgaggca ggagaattgc ttgaacccgg gaggcagagg ttgcggtgag ctgagattgc accagtgcac tccagcttgg gccacaagag tgaaactccg tctcaaaaaa aaaacagtag acccgaagaa ctagctgagt ttttctttac tttaattac aaattagcag 154260 154320 154380 154440 ttttgcaggt gactacttta gttcctcatg tcctcattag tagatcagag aaattcgaca ccaaaacccc aaaagaaaaa ccccttctaa tcctcattcc atgattttat gaatgcatga 154500 154560 agtcctaggc ctgcgaagga atactcattc tctttatcct gtgttgatac ctctctgctt 154620 caacctccaa ctcgacattt gcctatagga tgtacttgga cattcagcat aaactacctc acaccattac tgaattgctt catgtgcaca tgtcccatgc cacaataccg gggaccttgt 154680 154740 etteegtgat atttgteege agtgetgtga etacaggagg gagteagtga atgtetgeat 154800 gtgtgtcttt accatecete ttgaatatge tetagggtta attectagaa gtagaattae 154860 tctattgaaa attggcaata tttttcattc taatatctat tgccaacatg ggaaagcaag tctggatgcc agtccttgtt atatgcccct tgggtaagtt acgtaacctc tttaagcttc 154920 154980 tgttcactca tattttaaca aggaaaatta caatatttta cctcacaaaa ttgtagtcag 155040 cttctggctg tcttaaactc tggtatatag taaacactaa gtgttggtgt ccatccttaa 155100 tttgtaataa taggtcactt gttagagaaa tgcaccttac cattttcttt tctttcttt tttcagttat gactcaaaac ttgagataaa ggaaatctgc ttgtgaaaaa taagagaact 155160 155220 tttttccctt ggttggattc ttcaacacag ccaatgaaaa cagcactata tttctgatct 155280 gtcactgttg tttccaggag agaatgggag acaatcctag acttccacca taatgcagtt acctgtaggc ataattgatg cacatgatgt tcacacagtg agagtcttaa agatacaaaa 155340 155400 tggtattgtt tacattacta gaaaattatt agttttccaa tggcaataac ccatttatga 155460 gagtgtttta gcctactgga atagacaggg accacatcct ctgggaagca gataagcata gaactgatac ttgatgcaca ctcgtagtgg taactcatcc ctaatcagca ttgtaaagca 155520 155580 ggtgccagag gtggtttgct ttgtccttcc aaagcaggtg agtcagccc accgagagcc 155640 aggcagettt gagtggcage gtggtgetag cagettcage ggaacagggt gagagttaat tatgcagtet tettgacage ggcattaatt tggaaggaaa etgacaagte atgggtcaag 155700 155760 tttcagtgac ttcctccttc ctctgatggc agtatatagt tttcacattt taattcctcc 155820 tectgagatg cactatactt aaaaccatte teteceetge taacagaagg gtgtgaatet ggtttacttt gagcattagg atttgeeet ttggaattet geacteeagt tacttaactt 155880 155940 tecetteaga atacatgtgg aaagaaagaa agaaatageg atgaeteeae ttttgeeeet 156000 156060 gagcaggatg actggggaga gagaaacatt tgactttgac tgcctccccc attctttgct 156120 gtgagetgga aagtgtgeag ttggtegtet ttetteteet ttetttagga tagtaagaga 156180 ctcactcact gcacttctgc tcagttggct tctgcatcgg gatcacacag ccatcagcag gactgcccag ttggtgagca cactccattg accacgcggc gccagcgctt cctcaatgca 156240 156300 catgattgag aggaaagaaa gttctcttag atgttactgc ttttgctcag actttgcaaa 156360 aaaaaaaata tatatatata tgtataaata tataattatt aatcactttt gtccttgaga aagtcttgaa tgaacagaga atttattcca ttgcaatatt tgattgtata gaggcacact 156420 156480 gtttcatcga cagaagaagc aaaaaggctt tgtgtaagtt tttggtacta tgtaccacct 156540 ctgttattct tttaaagctg aagtattcat gtacttaaac catattatat ttaattgtgt 156600 ttgattttaa aatatatata tatgaattot atttaaaatt gtgtcaactt totgotttca 156660 gggcatttat ggctcttctg ttgaaatata ttgatctttc caaatatttt catttgcttt ctaaaaaaccc agaacatgag ccactactgg actttgcctt gtgtttgaag tgtatggcat 156720



## -183 of 185-

aaacccaagg tttttattag tcatctatgc tgtgattaat tcattttgtt cttttaacaa 156840 aatatttcca tccacttcac attgcttcaa tctttaacag aaaagcaata taaaggttat 156900 agaataaaat gtggttttgg gcaactcttg ctgcctctgc atgttttgga ataacaattt ctacaagact ctaggctgtt taaactagtg ctttcagtta agataaattc taatcatttc 156960 157020 tttgtatata cattttgtgc ttctgagcta gagatgccaa gtagttgtaa actgcttata 157080 aagagaatag cagcaaattt gagactcggc tacttttttc tgccccacct gctttgagac acagaagcgg agtgtggccc gaaattatta gccagattta atatttgatc taaagtaggt 157140 157200 cettgtacte attttaaagt tggaatttga tteeteeaac attgageace caccatgtte 157260 caggetetgt geattgtgee cacaaaataa gatteeetgg tggagttttt atgggtteaa 157320 ataatcagtt gaacaccctt catctttatc atgttgttga cattgacaca aattgtttaa 157380 aaagaaaaga tattagagag aaagtggtac ctttgtaact tgatgtgtct tcatcattcg 157440 gtaagatttg atgaaagtaa aaagcaaatg tcagccaaat ccagtgaaca gcaataaaac agggagtaac tttttataac tttttctact tggatttcaa cattcagtag agcttttcga 157500 157560 aatgtaagta gtttacagta ctggaggttt gactagttca gtaggaattt ggaggggaag 157620 gtcattctga attgtaacaa agtacaaact tctttgctgt tttatttaag tactgagagc 157680 taagcacctg atgaagtgac tgacctctct ccagtgacag tgtttgggta cctgcctgac 157740 ttcaggagtg gggtttatgt ttctacacag tgaccttttc tctcgccctc tcctcctcttgcccacaca ccagttgatt ggacctgggt tgaactcctg atccagacag gcccaagaca 157800 157860 gttettaatg ttaagaattt tggggeeggg caeggtgget catgeetgta attgeaacae 157920 tttgggaggc cgagacaggc ggatcacttg aggtcagggg ttcgaggcca gcctggccaa 157980 catggtgaaa ccctgtcttt actaaaaata caaaaattag ctgggcatgg tggcgcacgc 158040 etgtaatece agetaegtgg gtggetgaga caggggaate gettgaacet ggaggeggag 158100 gttgtgcaat gagccgagac cgtgtcactg cattccagcc tgggtgacag agggagactc tgtctccaaa aataaaaata agaaaaagaa ttttgggcta ggtgcagtgg ctcacgcctg **158160** 158220 taattacage attttggaag geceaagatg ggeagateae ttgaggacag gagttegaga ecageetgga caacatggtg aaacteeate tetactaaaa agacaaaagt tageeagatg 158280 158340 tggtgatggg cacctataat cctagctcct cgggaggctg gggcaggaga atcacttgaa 158400 eccaggaage agagattgca gtgagecaag atcacatete tgcactecag cetgggcaae 158460 agagcaagac tetgteteaa aaaaaaaaga atttggeeag gegeagtggt teaegeetgt 158520 aatcccagca ctttgggagg ccaaggcagg cagatcacga ggtcaggaga tcgagattgt 158580 cetggetaac atggtgaaac cetgteteta etaaaaatac aaaacattag eegggtgtgg tggtgggeac etgtagtece agetactagg gaggetgagg cagaggaagg atgtgaacce aggaggegga gettgeagta agecaagate gtgccaetgg acatacagtet gggegacaga gtgagactec gtetcaaaaa aaaaaagaat tttggeeggg tgeggtggca catgcetgta 158640 158700 158760 158820 gtcccagcac tttgggagac caaagtgggc ggattacttg aggtcaggag ttcaagacca gtccggccaa tatggcgaaa ccctgtctct tactaaaaaa aatacaaaaa ttagccaggt 158880 158940 gtggtggcgg gcacctgggg aggctgaggc agggagaaat gcttgaaccg gggaggcaga ggttgcagta agccaagatc gtgccactgc actccagagc aagactcttt ctcaaaaaaa 159000 159060 aaaaaaaaag aattttgcat ggggaaggag agatactgtt caccatctgg aatggtgctt ggatgtggca cttacaaaat caggagccag cactgcatgg acaaacagaa gcatgtgggc 159120 159180 ctgagatage aggtacettg ataaccetga agacateett ggtttetgea tetatteetg 159240 cateettgea ttggactaca ttaatetgte agttateett ataatgattt ttgattttt 159300 ttttttgaga tggagtttcg ctcttgttgc ccaggctgga gtgcaatggc acgatctcgg ctcaccacaa cctccacctc ccaggttcaa gtgattctgc tgcctcagcc tcctgagtaa 159360 159420 ctgggattac aggcatgcgc caccacacct ggctaatttt gtatttttag tagagacggg 159480 gtttctccat gttggtcagg ctggtctcga actcccaacc tcaggtgatc accctgtctc 159540 ggcctcccaa agtgctggga ttacaggcgt aagccatggt acccggtctg ttttttgatt 159600 ttttgaaacc agtctgaagt gagtttttt aattacgtga aaggagtttg gctaaaatac tgccatactg ccctaatgcc taatgattat gtattctcag catgtctgca aagtactgct 159660 159720 gatttctgga gaataatītt tettīagtaa aetteaetta agtegteatg tgīatteīet 159780 caaaatggta teetaaeeta atggagetaa aagaeaeeee ttgtttttat aacaageagt 159840 tactgaggcc caggaagggg agaagtccct ggcttgtgag atgatcacca ttagaactca 159900 ggcctgggcc agtgcctttt catgcttctc agatccttcc aaagaataat gaagattata 159960 accgctttta gcaattgtaa taaacccaga aatagaaagc tttttggtta gagtactggt agaagtttgg cgggagagat aatttttaca aaatttgtaa atacctgcca attctatata 160020 160080 ctaggcaagg tetetggeet tgtaaaacce etcaaggtta caactttggt ggeecacact 160140 aatagttacc cactgaggcc ctctccgggt gaacattgag cactagagga agcccctctg 160200 cttgggcagg actgggcgtg gtgcagagta ggagcggtga tactgtggat tctgggcagg 160260 tggagatggc cagtgatgtc caataaagga cactggaggg agcagtgtga gtaaaggccc 160320 tgagggcatt catgttcagg gagggttgct gcccactggc ttgcttggca cacaggagag 160380 tgggtattcc tgccttagta actitatgta aacaagtatt tcctcagtct gttcctctca 160440 aactgeetge tetggeacat teagaatgte acagaactea eetggatgea tteageeeet 160500 tgectaaagg tgacagtgea teteetteee caecceacce etcataccae tgaageacct 160560



# -184 of 185-

gtcagactgg cccagtctgt gagctgggat ttaccaagaa ccagcttcag ctgactcctg aggctggcct ctccacatc tccagctgaa ggaagcccca agagtacctt ttgtttcttc agtcaccttgg agctctgcat tggcaggagacttggggagat tctctactaa agtaaaaaa gctacttgg gagctgaggg aacaatattg cagcagaga tgaggagagttcaggtgtg cacgagagagagagagagagagagagagagagagagag	gcaaatgaga tatattgact acagtaagaa cacttctttc taattatgta gcactgttta ctattgaaga cagtggctca aggagatcga aaaaattagc aggagaatgg ctccagcctg tgatcacag gaagagaagt tgccactcca ttacaagatg accttagagt gctttagagt gctttagagt gctttagagt gctttagagt gctttagagt gctttagagt gagcagcgtc aaggcagcgtc aaggcagcgtc aaacaaagtt	gacgaggatt gtgccttcag ttccacacac aagtttttct actattggtt cagggacaca ggtaatggaa cacctgtaat gaccatcctg caggtgtggt tgtgaaccca ggtgacattgg tgtgacatcag ggccttctgg gccccttctg tcagcatctt aaggcttaga atgtgaatct taaccttgct tcagcatctt aatgtgaattc taaccttgga ttctgcagtg tcatttgga ttctgcagtg tcatttgat	gcaacaactg actcatccgt catacaactt tagtcttctc tagtaacatat ggaaggaata gccagcactt gctaacatgg ggcgggcgcc ggaggcgaag cgagacatctg tatagaccca tgtcctgtca gcaagactgg gatgcctgag agaggccgta ttaaaacaa agaggccgta ttaaaacaa cttaaaacaa cttgtgataa	tgccatttcc aagtgacccc ggaaagaggc ttcttggcaa tcacccattc aaacttgca cagctaaact tggaggccaa tgaaaccccg tgtagtcca attgcagtga tctcaggaaaa ttaggtctcg tagggagagc gcctcatcct aggtttttcc accatcaagg aagtcagtct gactattgta tagctgttga tcagcataat tcttgtaagt	160620 160680 160740 160800 160860 160920 161040 161100 1611220 161280 161340 161460 161580 161580 161760 161760 161820 161880 161880 161880 161880 161940 162025
<210> 19 <211> 19		•		-	
<212> DNA <213> Artificial Seque	ence				
<220>				•	
<223> Primer					
<400> 19		•	•	-	
gccgccatat tatcaacaa			•		19
<210> 20 <211> 18					
<212> DNA <213> Artificial Seque	ange				
_	siice				
<220> <223> Primer					
<400> 20					
ctctgcgtct caggtatt					18
<210> 21 <211> 20		ů.			
<212> DNA <213> Artificial Seque	ence	•			
<220>					
<223> Primer				•	
<400> 21 ccccagggag ttagttttgc					20
<210> 22 <211> 20					
<212> DNA					
<213> Artificial Seque	ence				

# -185 of 185-

<220>	Primer		
<400>			
gatcca	acggt cctcaaagaa		20
<210>			
<211>			
<212>			
<213>	Artificial Sequence		
<220>	,	,	
<223>	Primer		
<400>			
cactgo	accc agecttatg	•	19
<210>	24		
<211>	20		
<212>			
<213>	Artificial Sequence		
<220>			
<223>	Primer		
<400>	24		
ctggga	tgtg aaggaaagga		20
<210>	25		
<211>			
<212>			
<213>	Artificial Sequence	•	
<220>			
	misc_feature		
<222>			
<223>	N= a or g or c or t/u		
<223>	ribozyme		
<400>	25		
	and addingsed anomy	•	

`